

Predicting and determining antecedent factors of tourist village development using naive bayes and tree algorithm

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Abstract: This study aims to predict the progress status of tourism villages in the Kedung Ombo area, Java, Indonesia, and find the antecedent factors of the progress of tourism villages in Indonesia. This study uses a modern approach, namely data mining. Data sources for tourist villages use the data available on the Google link and the observation method. The prediction technique uses the Naïve Bayes machine learning algorithm and Tree Decision on Orange 3.3.0 software. The number of tourist villages analyzed was 126. The results showed that all tourist villages in the Kedung Ombo area were at the development level of the four tourist village classifications of the Ministry of Tourism and Creative Economy. The antecedent factors for the progress of tourism villages are the completeness of ICT facilities, multi-stakeholder partnerships, strong government support, community involvement, and various attractions. Another finding is that the Tree Decision algorithm provides better predictions than the Naïve Bayes method. The results of this study can be used to design policies for developing tourist villages throughout Indonesia.

Keywords: data mining, decision tree algorithm, naïve bayes, tourist village development

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Introduction

Rural tourism is becoming a significant trend, especially in developing countries, as a manifestation of the concept of community-based tourism (CBT) which is deemed to be able to counteract the negative impacts of mass tourism related to social equality, environmental degradation, and preservation of community culture (Khalid et al., 2019; Muganda et al., 2013). Rural tourism could be a vehicle of sustainable development that could generate employment and income creation, prevent rural exodus, encourage socio-economic networks, save and enhance cultural and natural heritage, and improve the quality of life for residents (Rodrigues et al., 2021; Powell et al., 2018). Gohori & van der Merwe (2020) propose a reciprocal relationship between tourism, poverty alleviation, and community development. In the context of sustainability, rural tourism is synonymous with sustainable tourism development in nature, scale, character, and development process (Sharpley & Roberts, 2004).

Rural development through tourism has become an essential concept for both developed and developing countries as it represents a process of mobilizing innovation and aligning change, focusing on increasing opportunities for the population, economic growth, protection of natural resources, and social equality. Rural tourism is considered capable of supporting development in rural areas that are structurally weak (Neumeier & Pollermann, 2014). In rural areas, especially in developing countries, tourism is enthusiastically accepted as a panacea for revitalizing the rural economy: thus prompting many government agencies, particularly those related to tourism, to invest in promoting more sustainable forms of community-based rural tourism (Kamarudin et al., 2020). The tourist village program is a priority rural development program (Ariyani et al., 2022).

In Indonesia, rural tourism is manifested in the form of tourism village development (TVD), which since 2021 has been set by the Coordinating Ministry for Economic Affairs. TVD is directed

toward increasing economic growth for people's welfare, eradicating poverty, overcoming unemployment, preserving nature, the environment, and resources, and promoting culture. The development of tourist villages is expected to be one form of accelerated village development in an integrated manner to encourage the village's social, cultural, and economic transformation. The success of the tourist village could become leverage for the village and regional economy, which will ultimately encourage national economic growth. In Indonesia, tourist villages are categorized as pilot, developing, developed, and independent villages (Ariyani & Fauzi, 2023).

Along with these provisions, various rural areas develop tourist villages. No less than thousand eight hundred and seventy tourist villages are spread throughout Indonesia. One area designated as a tourist village is the Kedung Ombo reservoir in Central Java. There are eight tourist destinations with the concept of a tourist village. Against the background of the limited benefits of reservoirs for communities in the upstream area, several community groups take advantage of the reservoir panorama as a tourist attraction. The existence of tourist villages in this area was expected to solve this area's socio-economic problems and infrastructure limitations.

However, to date, these efforts have not shown significant progress. Instead of creating alternative jobs for the local community and reducing poverty, the tourist villages have not been able to bring in enough visitors even though they have been developed over the years. As an integral part of the national tourism development agenda, this community initiative in the Kedung Ombo area needs support.

One of the reasons for the condition of tourist villages in the Kedung Ombo area is the development approach, which is based more on conventional methods that focus on in situ characteristics of the villages. Although this approach has advantages related to the ability to identify local needs, it has disadvantages due to the lack of understanding of hidden factors that may determine the development of the tourist village. For example, several tourist villages have the same characteristics, yet they may produce different outcomes related to the performance of the tourist village.

This shortcoming can be bridged with a modern approach based on data mining through machine learning such as Naïve Bayes and Tree. Machine learning is an analytical method using past information, usually in the form of available electronic data, to make accurate predictions. In principle, this approach is carried out by harvesting big data. Then, machine learning will produce forecasts regarding whether the tourist villages developed successfully or not. In addition, machine learning algorithms such as decision trees can be used to determine what factors (the antecedent factors) produce a pattern of success for tourist villages to develop.

The use of machine learning has been widely used in various studies, both economic, social, environmental, technological, and political (Ariyani et al., 2022). Naïve Bayes (NB) algorithm is trained and is used to classify or determine the gage length of the wheat straw based on target mechanical properties (Naik & Kiran, 2018). In the field of tourism, machine learning, for instance, has been used to forecast demand for tourism (Ahmed et al., 2007; Li, 2022; Yu & Chen, 2022), marketing strategies for rural tourism (Xie & He, 2022), and recommendations for smart tourism strategies (Ho, 2022). The use of machine learning for tourism cases in Indonesia is limited to several aspects, such as predictions of international tourist arrivals during the Covid-19 period (Andariesta & Wasesa, 2022) or estimation of international tourists (Purnaningrum & Athoillah, 2021). There remains a lot of room for tourism analysis with machine learning that can be done for the current case, such as predicting how the tourist village will develop or not and what antecedent factors determine the development of the tourist area. This study aims to predict the progress of tourist villages in Kedung Ombo area and determine the antecedent factors of successful development.

Rural tourism has various definitions with a very broad scope. Researchers from different countries develop their definitions based on the unique experiences or contexts they encounter (Nair et al., 2015). According to Tang (2022), rural tourism has no single definition. This statement implies that determinants of the success of tourist villages are difficult to identify (Ayazlar & Ayazlar, 2015).

In their research, Rodrigues et al. (2021) found that community involvement is a critical factor in developing tourist villages. Community participation is vital in creating sustainable community-based tourism (Amin & Ibrahim, 2015). In line with that, Bajrami et al. (2020) stated that

one of the critical factors for the success of sustainable tourism in rural areas is the support from community members. Community participation can empower communities and significantly contribute to rural tourism development, which helps eradicate poverty, depopulation, hydro-geological instability, and degradation of cultural heritage and landscapes (Basile et al., 2021). Local people play a crucial role in developing sustainable tourism in rural areas (Yu et al., 2018). They must be involved in decisions that will influence themselves, their families, and their communities (Powell et al., 2018).

In addition to requiring the participation of all stakeholders, sustainable tourism development requires involvement from all relevant stakeholders and strong political leadership to ensure broad participation and build consensus (Kantsperger et al., 2019). The government is a leading actor with a paramount role in tourism development (Firdaus et al., 2021; McLennan et al., 2014). A more participatory rural development involving horizontal and vertical coordination places the government as the driver of the partnership process between stakeholders in helping to develop and oversee the strategic direction of rural tourism development (Koopmans et al., 2018). This interventionist approach adopting a more active government role in tourism development has become widespread worldwide, even in countries with different ideologies (Liu et al., 2020).

In its development, CBT requires public partnerships both in local and global contexts (Purbasari & Manaf, 2018). Regardless of the type of CBT services, these ventures should remain wholly owned, managed, and controlled by community members (or groups of independent micro and small experiences under the same CBT management organization). Meanwhile, external partners should provide facilitative and other support services instead of being a partner in the CBT venture itself (Mtapuri & Giampiccoli, 2013).

Research conducted by Kristianto et al. (2019) in the tourist village of Pahawang, Lampung, Indonesia, found the antecedents of the success of rural tourism development include attractions, amenities, accessibility, image, human resources, and tourism prices. The determination of ticket prices in rural tourism is a factor directly related to the interests of each stakeholder (Wu et al., 2017). Another factor is infrastructure, including homestays (Bhalla et al., 2016). Information and communication technology (ICT) plays a role in supporting the development of rural tourism as media promotion, booking, and payment facilities for transactions (Hidayatullah et al., 2018; Waghmode, M. L., & Jamsandekar, 2013). ICT-based management can be formulated into a tourist village development strategy (Pantiyasa et al., 2019).

León-Gómez et al. (2021) found that the criteria for the success of CBT from evaluations in several countries in Asia: involving the masses of people; benefits being distributed equitably to all communities; good tourism management; strong partnerships both inside and outside; unique attractions; environmental preservation; the uniqueness of the location; the facilitation of existing embryo activities; involvement of the broader community as tourism actors; and partnerships. In a different context, Yang et al. (2016) stated that tourism resources, tourist traffic, and social and economic factors drive island tourism. Government policies, tourism companies, and the tourist market are external drivers.

The diversity of findings on the determinants of the success of the development of tourist villages can be used as material for analysis in developing tourist villages in Indonesia. The in-situ characteristics of tourist villages in Indonesia are closely related to the community's geographical and socio-economic conditions and require guidance to be developed successfully in the future time spectrum.

This research has two objectives. First, it is to predict village tourist development in the Kedung Ombo area. Second, it is to analyze the antecedent factors that determine the success of tourist village development.

Methodology

This study uses a modern approach to achieve research objectives, namely data mining. Data mining is a data acquisition method and information collection methodology that can guide decision-making efficiently by extracting and analyzing accumulated datasets (big data) to obtain helpful knowledge (Adekitan et al., 2019). To achieve the first objective, Naïve Bayes and Trees algorithm are used, and for the second goal, the Decision Tree algorithm is used. All analyzes were performed using the Orange 3.3.0 software.

To analyze the tourist village development profile, use nine (9) attributes: (1) the level of community participation, (2) the variety of attractions, (3) the level of government support; (4) the intensity of partnership, (5) the completeness of infrastructure, (6) the distance of object location to the main road, (7) the ticket price, (8) management, and (9) the application of information and communication technology (Table 1). For analysis progress status of tourist villages, the data of tourist villages are grouped into developed and progressive tourism villages based on the modified criteria of the Ministry of Tourism and Creative Economy: (1) the number of tourist visits both from within and outside the region, (2) the community can manage tourism businesses, and (3) the creation of employment from the tourism.

Table 1. Attributes of Tourism Village Development and Measurement Scale

Attribute	Measurement
Community Participation	Active – Passive
Attraction	Single – Diversity
Government Support	Strong – Weak
Partnership	Mono - Multi (government, private, academics)
Infrastructure facilities (meeting hall, prayer room, toilets, gift stalls, food stalls, selfie spots, and homestays)	Complete – Partial
Location Distance	0-10 km; 10-30 km; ≥ 30 km
Management	Community; Government; Collaboration (Community, Village-owned Enterprises, Youth Organization)
Ticket Price	0-30 (IDR 000); 30 -75 (IDR 000); ≥ 75 (IDR 000)
ICT	Good-Limited
Target Variable	Tourism village development status: developed-progress

According to the machine learning approach, the data in this study consists of two categories, namely the training data and testing data. The training data represent features from 126 tourism villages and is used to build a prediction basis model. The training data were obtained from various news and reviews about tourist villages in Indonesia on Google Search. At the same time, data testing is test data that will be tested based on the predicted results of training data. Data testing is the profile of eight tourist villages in the Kedung Ombo area (Table 2). The data in the Kedung Ombo area was obtained using the observation method.

Table 2. Profile of Tourist Village in the Kedung Ombo Area

No	Tourist Village	Participation	Attraction	Government Support	Partnership	Infrastructure	Distance	Management	Ticket Price	ICT
1	Bo-yolayar	Active	Mono	Weak	Mono	Partial	0-10	Community	0-30	Limited
2	Wono-sari	Active	Mono	Strong	Multi	Complete	0-10	Government	0-30	Limited
3	Wono-harjo	Passive	Mono	Strong	Multi	Complete	0-10	Government	0-30	Good
4	Kedung Grujug	Passive	Mono	Strong	Mono	Partial	0-10	Community	0-30	Limited
5	Soko	Active	Mono	Strong	Mono	Complete	0-10	Collaboration	0-30	Limited
6	Pen-dem	Passive	Mono	Weak	Mono	Partial	0-10	Community	0-30	Limited
7	Bagor	Active	Mono	Weak	Mono	Partial	10-30	Community	0-30	Limited
8	Bulu Serang	Passive	Mono	Strong	Mono	Partial	0-10	Collaboration	0-30	Limited

The Naïve Bayes algorithm is a probabilistic classification algorithm regularly used to handle big data (Panawong et al., 2014). Naïve Bayes is a widely used method because it is simple, measurable, and efficient in classifying (Ramoni & Sebastiani, 2001; Naik & Kiran, 2018). Naïve Bayes uses probability and statistics and the basic Bayes theorem. Probability is the chance that an event will occur randomly. Bayes' theorem was discovered by Thomas Bayes (1701-1761), who introduced that the conditional probability of a non-single event, i.e., the probability that an event will occur, is affected by the previous event. In this research, the naïve Bayes method is used as the first approach to prediction. The equation of Bayes' theorem is as follows:

$$P(A|B) = \frac{P(B|A) \cdot P(A)}{P(B)} \quad (1)$$

$P(A|B)$ is the posterior probability which indicates how often event A occurs under condition B. $P(B|A)$ is the prior probability which shows how often B occurs given A occurs. $P(A)$ and $P(B)$ are the probabilities of events A and B, respectively.

The decision tree is a classification method applying a tree structure or decision hierarchy. According to Anggarwal (2015), it is a classification method whose model uses a set of decisions in a ranking, forming a tree structure with feature variables. Decision trees are easy-to-understand and often accurate decision-making applications (Witten et al., 2017). The decision tree algorithm criteria commonly used are ID3, C4.5, and CART. Iterative dichotomized 3 (ID3) is an algorithm with a basic iterative structure, and its features are divided into two classes at each step. This method produces a classification in the form of a decision tree that starts from the root of the tree of possible decisions—following the explanation of Quinlan (1992)(Quinlan, 1992), who developed an improvement on the previous method and called it the C4.5 algorithm. Breiman (2001) also developed another decision tree algorithm called the classification and regression tree (CART). This classification divides a binary data set into two sets separately. The CART method calculation process has several stages (Anggarwal, 2015).

A collection of points on the data S. Suppose that p is included in the dominant class. The error rate is calculated as 1-p. For the Split r-way from the set S to the set $S_1 \dots S_r$, the error rate of the split can be qualified as a weighted average of the error rates of the individual sets of S_i , where S_i is $|S_i|$. The separation with the lowest error rate is selected from the alternatives.

- The Gini index $G(S)$ is the training data for S in class $p_1 \dots p_k$ distribution from the training data points in S.

$$G(S) = 1 - \sum_{j=1}^k p_j^2 \quad (2)$$

The overall Gini Index for the r-way split from the set S to the set $S_1 \dots S_r$ can be quantified as a weighted average of the Gini Index values $G(S_i)$ of each S_i , where the weight of S_i is $|S_i|$.

$$Gini - Split (S \rightarrow S_1 \dots S_r) = \sum_{i=1}^r [s_i] G S_i \quad (3)$$

The split with the lowest Gini Index is selected from the alternatives. The CART algorithm uses the Gini Index as the split criterion.

The illustration of data mining using machine learning Orange in this research is shown in Figure 1.

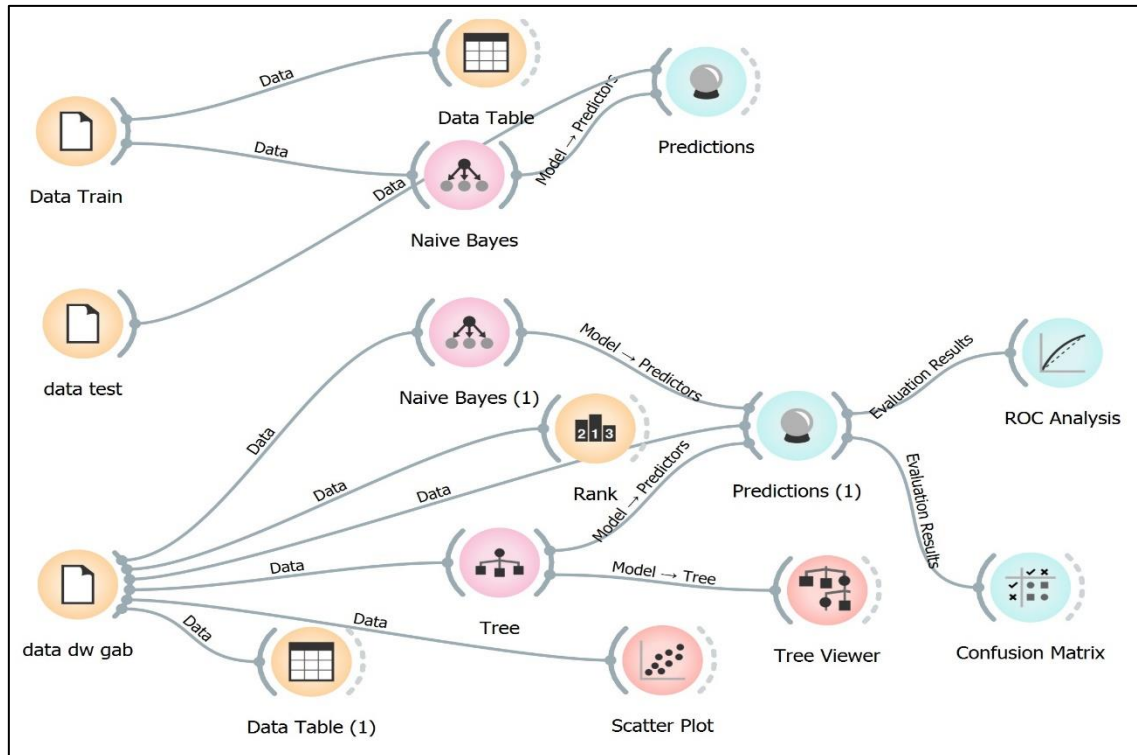


Figure 1. Image Data Mining to Determine the Status of Tourism Villages

Performance Evaluation

Performance Test

A performance test is used to get the best validation and learning model through cross-validation. This process tests which algorithm gives the best classification probability and is suitable for use as a prediction. These results can be seen in the prediction scores and test scores. The performance test was carried out using the cross-validation method as a sampling method because this method was effective in avoiding unintentional effects, primarily due to data limitations. This method was also suggested by Witten et al. (2017).

The learning technique separates the data into two categories: training data (training data) to form the model and test data (testing data) to test the model's performance. The classification results are likely to be accurate or rarely incorrect. The data will then be divided into several parts, symbolized by k in n data, known as k -fold cross-validation. Each iteration has a representation so that all data elements are met and data strata are used. The average result of each iteration obtained is used as the validation value.

The measurement of performance values is based on the confusion matrix value, which represents the prediction compared to the actual condition of the data generated by the machine learning algorithm (Table 3). True Positive (TP) is a positive and correct prediction; True Negative (TN) is a negative and true prediction; False Positive (FP) is a positive and false prediction result, while False Negative (FN) is a negative and false prediction result.

Table 2. Confusion Matrix

		Predicted	
		-	+
Actual	-	True Positive (TP) = A	False Positive (FP) = B
	+	False Negative (FN) = C	True Negative (TN) = D

Based on the Confusion Matrix in the naïve Bayes method, prediction performance is measured using the following values:

- (1) The Area Under Curve (AUC) describes how accurately the model can classify correctly visually. The accuracy of the ROC classification is done by visually calculating the area under the Receiver Operating Characteristics Curve (ROC) curve. An excellent model has an AUC value close to 1. The following is the formula for the area Under the ROC Curve:

$$AUC = \frac{1}{2} \sum_{i=1}^n (x_{i+1} - x_i)(y_{i+1} - y_i) \quad (4)$$

The accuracy of the predicted values was confirmed using the criteria developed by Gorunescu (2011) in Table 3.

Table 3. Prediction Value Classification

AUC Score	Classification
0.90 – 1.00	Excellent
0.80 – 0.90	Good
0.70 – 0.80	Fair
0.60 – 0.70	Poor
0.50 – 0.60	Failure

(Source: Gorunescu, 2011)

- (2) Classification Accuracy (CA) shows the accuracy of the predictions generated from the predicted and actual values divided by the total results. As with AUC, the higher the CA value, the closer to 1, the more accurate the model prediction.

$$CA = (TP + TN) / (Total A+B+C+D) \quad (5)$$

- (3) Precision. Precision is the ratio of the true positive predicted value to the overall positive predicted result. The value of precision in validation is more practical and provides an accurate picture.

$$Precision = TP / (TP + FP) \quad (6)$$

- (4) Recall. The Recall is a positive true value comparison with all true values. The Recall compares the predicted positive true value with the overall positive true value. F1 is a weighted comparison of the average precision and Recall.

$$Recall = TP / (TP + FN) \quad (7)$$

- (5) F1. the F1 score combines Recall and Precision (described below) into one performance metric. The F1 score is a weighted average of Precision and Recall. Therefore, this score takes into account false positives and false negatives.

$$F1 = 2FP / (FP + FN + 2TP) \quad (8)$$

Results and Discussion

Results

From the machine learning process on train data and test data using the Naïve Bayes and Tree methods, predictions regarding the status of villages in the Kedung Ombo area are obtained, as shown in Table 4. The prediction results show that the eight villages in the Kedung Ombo area, which are the basis of this study, are predicted to be developing tourism villages.

Table 4. Prediction Results of Tourism Village Status Based on Naïve Bayes and Tree Methods

No.	Naïve Bayes	Tree	Status	Desa
1	1.00: 0.00 developing	1.00: 0.00 developing	Developing	Boyolayar
2	0.37:0.63 developing	1.00;0.00 developing	Developing	Wonosari
3	0.91:0.09 developing	0.92: 0.08 developing	Developing	Wonoharjo
4	1.00:0.00 developing	1.00:0.00 developing	Developing	Kedung Grujug
5	0.92:0.08 developing	1.00:0.00 developing	Developing	Soko
6	1.00: 0.00 developing	1.00: 0.00 developing	Developing	Pendem
7	1.00:0.00 developing	1.00:0.00 developing	Developing	Bagor
8	1.00:0.00 developing	1.00:0.00 developing	Developing	Bulu Serang

(Source: Data processed with Orange Software 3.3.0)

The results of performance predictions were tested using AUC, CA, F1, Precision, and Recall values, as shown in Table 5.

Table 5. Performance Test Results Through Cross-Validation of Naïve Bayes and Tree Method

Model	AUC	CA	F1	Precision	Recall
Naïve Bayes	0.925	0.858	0.822	0.721	0.957
Tree	0.966	0.888	0.828	0.878	0.783

(Source: Data processed with Orange Software 3.3.0)

Table 5 shows that the performance results of the AUC validation value of the naïve Bayes model are 0.925. Following the classification of prediction accuracy values developed by Gorunescu (2011), this prediction falls into the excellent category. While the AUC value of the decision tree is 0.966, so it is also included in the excellent classification. The AUC value shows that the neural network is the best method for predicting the status of tourist villages in the Kedung Ombo area.

Moreover, according to the results of the prediction classification test on the accuracy value (CA), the highest value is obtained from the Naïve Bayes gets a value of 0.858. and the decision tree has 0.888, which is in the good category.

Furthermore, from the prediction test results on the accuracy value (CA), it is known that the Naïve Bayes method gets a value of 0.858, while the Tree method gets a value of 0.888. These results include the good category. Predictive performance assessment uses the F1 value. The Naïve Bayes method gets a value of 0.822, while the Tree method gets a value of 0.828. Thus, the predictive performance of both falls into the fair category.

Performance assessment using the precision value is known to be the best found in the Naïve Bayes model, having a value of 0.933, and the decision tree has a value of 0.878. The latter methods are good classification. The opposite result is obtained from the Recall test, where the Naïve Bayes method has an enormous value of 0.957, so it is classified as an excellent category. While the value of the Tree method of 0.783 falls into the good classification.

The prediction accuracy value can also be known through the ROC graph in Figure 3. Testing the model by looking at the ROC curve is the easiest way to graphically compare the accuracy values of each classification model. Figure 2 shows that all models are good at predicting because they are close to point 1.0, and the neural network model has the best accuracy value because the ROC curve is most intimate to point 1.0. The results of this analysis confirm the previous test.

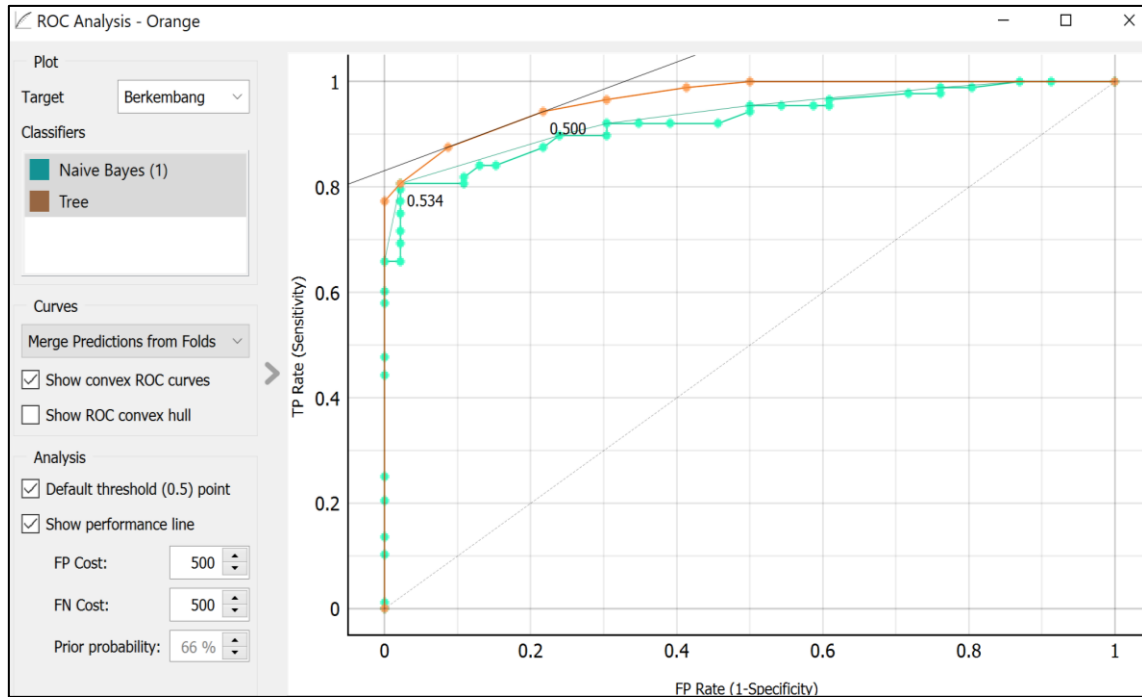


Figure 2. ROC Analysis

The results of this prediction were then tested for accuracy using the Confusion Matrix (Figure 3).

		Predicted		Σ
		Berkembang	Maju	
Actual	Berkembang	71	17	88
	Maju	2	44	46
Σ		73	61	134

		Predicted		Σ
		Berkembang	Maju	
Actual	Berkembang	83	5	88
	Maju	10	36	46
Σ		93	41	134

Figure 3. Confusion Matrix on Naïve Bayes and Tree Method

Based on the formula given previously, it is known that the results of the model performance test are based on the Confusion Matrix (Table 6).

Table 6. Prediction Test Results through Confusion Matrix from Naïve Bayes and Tree Method

Model	CA	F1	Precision	Recall
Naïve Bayes	86%	88%	82%	97%
Tree	88%	91%	94%	89%

(Source: Data processed with Orange Software 3.3.0)

The Confusion Matrix test results show that the predictive values for all the methods used are classified as excellent and good. The Naïve Bayes algorithm provides more consistent valida-

tion than other methods in the three parameters of the five methods. Thus, this method is considered the most accurate in providing views on development policies in tourist villages in the Kedung Ombo area.

The overall distribution of tourist villages based on cross-correlation between several tested attributes is shown in Figure 4.

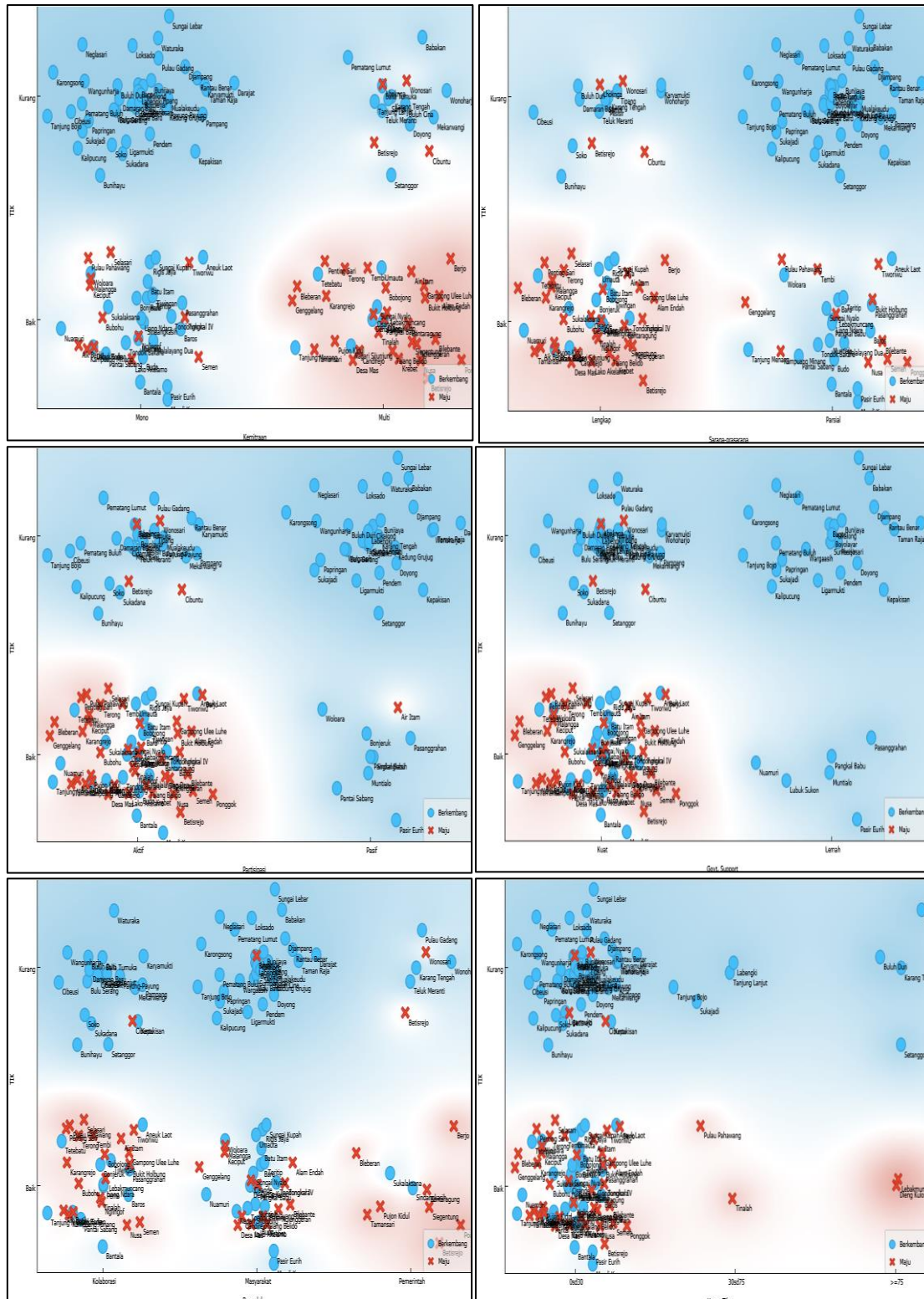


Figure 4. Scatter Plot between Target and Feature Variables

Discussions

From this point, to find out what attributes most determine the progress of a tourist village, it can be seen from the decision tree model. The results of the decision tree classification provide a good analysis of the predictions generated. The gain ratio value from the decision tree determines which variable is the split classification. The decision tree begins with the formation of roots (located at the top). Then the existing data is divided based on attributes suitable to be made into leaves connected and developed through branches.

Decision rules are formed from the Tee method that has been created and then derived by tracing from roots to leaves. Based on the dataset processing using the Tree method, the accuracy of the classification process obtained an AUC value of 96%, which means that predictions through the decision tree method are excellent. The decision tree image in Figure 5 provides information about the attributes/conditions that determine the progress of a tourist village.

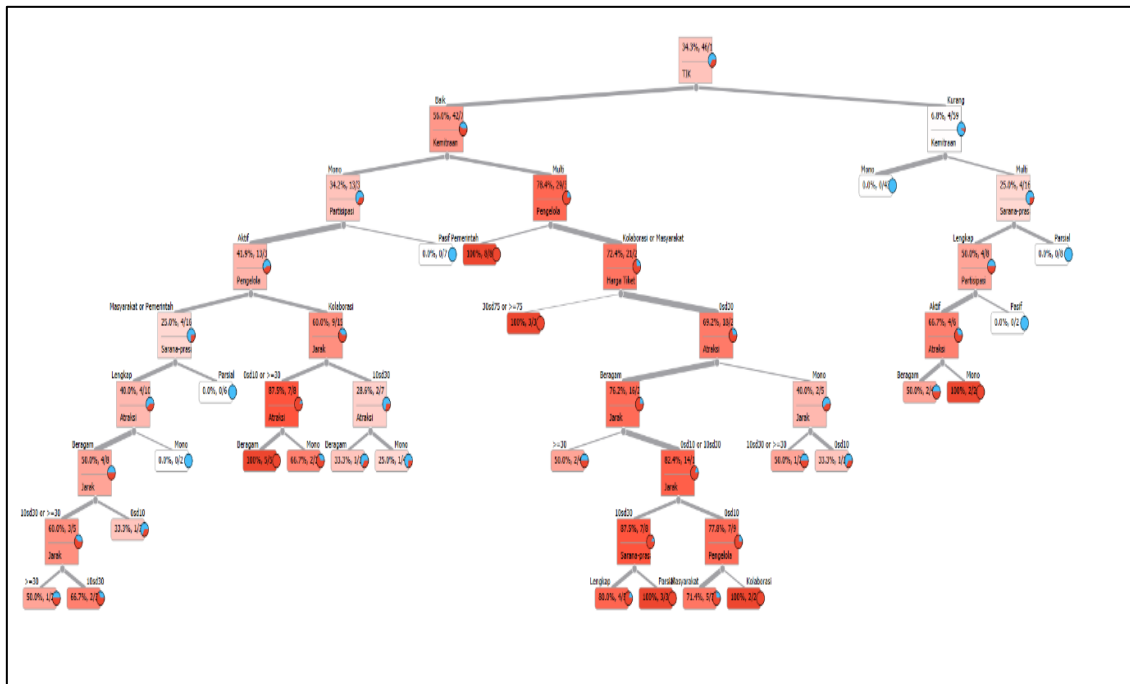







Figure 5. Decision Tree Prediction Results

Base on Decision Tree (Figure 5) shows the factors determining the progress of a tourist village are the type of collaborative management, the location distance from 0 km to 30 km or 10 km to 30 km, various attractions, and a maximum ticket price of 30,000 rupiahs, ongoing partnerships with multiple partners (government, academia, and the private sector), as well as good ICT facilities and applications.

Furthermore, from the results of the decision tree prediction, the order of attributes that most influence the progress of the tourist village can be seen. The Orange operation shows the ranking results for the antecedent factors of the progress of tourism villages (Table 7).

Table 7. Attribute Rank Determining Tourism Village Progress

		#	Info. gain	Gain ratio	Gini	χ^2
1	 TIK	2	0.217	0.219	0.119	19.862
2	 Kemitraan	2	0.166	0.171	0.102	18.347
3	 Govt. Support	2	0.166	0.212	0.071	16.205
4	 Partisipasi	2	0.164	0.190	0.080	16.935
5	 Sarana-prasarana	2	0.139	0.140	0.084	11.591
6	 Atraksi	2	0.101	0.102	0.060	9.518
7	 Pengelola	3	0.053	0.038	0.033	0.132
8	 Jarak	3	0.010	0.007	0.006	0.060
9	 Harga Tiket	3	0.000	0.000	0.000	0.008

(Source: Data processed with Orange Software 3.3.0)

At Table 7 ICT is the attribute that has the most significant influence on the progress of tourist villages from various measurement bases (Info. gain, Gain Ratio, Gini, and χ^2). At the next level is the attribute of partnership, followed by government support, community participation, and infrastructure. Next are the tourist attractions. The management and distance attributes have little influence, and the ticket price attribute has almost no effect.

These findings can be explained by the presence of ICT (especially the internet) that has changed tourists' behavior, especially in seeking information. Therefore, ICT should be utilized in creating ideas and information about rural tourism in the minds of tourists and enhancing seek information, such as tourism services, locality accessibility, ticket booking, and payment methods, as well as other tourist facilities. In the case of rural tourism, ICTs can facilitate the establishment of relationships between tourists and managers, even after the visit is over. Managers can build a visitor database to develop these relationships to contribute to building visitor loyalty. Friendly service during and after travel activities which ICT facilities support, can determine this loyalty.

The next determinant factor most significantly influencing tourist village progress is multi-stakeholder partnerships. Furthermore, the following factors are strong government support, community involvement, completeness of infrastructure facilities, and various attractions. However, the characteristic of each village are factors that must be developed in an integrated manner to accelerate the progress of tourist villages.

The results of this study support research conducted by Hidayatullah et al. (2018) and Waghmode & Jamsandekar (2013) that ICT is a factor that plays a role in supporting the development of rural tourism and tourist villages as a promotional medium and booking and payment facilities transaction. Regarding partnerships, the results of this study are in accordance with research conducted by Purbasari & Manaf (2018) and Mtapuri & Giampiccoli (2013), which state that rural tourism development requires public partnerships in both local and global contexts. While related to community participation, the results of this study follow the results of research by Rodrigues et al. (2021); Bajrami et al. (2020); Basile et al. (2021); Yu et al. (2018); (Powell et al., 2018); and Amin & Ibrahim (2015) who in their research found that community involvement is a critical factor in the development of tourist villages. While the findings regarding the completeness of tourism infrastructure, the results of this study are in accordance with research conducted by Bhalla et al. (2016).

Conclusions

Tourism management, especially rural-based tourism, faces complex and challenging issues. The dynamic interaction between various components affects the tourism sector's performance. Hence, a paradigm shift is needed in determining the right rural tourism policy. The use of machine learning will be critical to help develop science-based and data-driven policies in the future. Besides being used to predict how a tourist village will grow or if it will not develop, machine learning will also reduce bias in determining tourism development policies, which tend to be more subjective.

In this study, the Tree Decision algorithm is the best approach to predict the progress status and determine antecedent factors of the progress of tourist villages. Likewise, the variables analyzed, namely community participation, diversity of attractions, government support, partnerships, infrastructure, ticket prices, distance to locations, management, and ICT, are the right factors to predict village status.

Among the antecedents of these variables, this study finds ICT is the main factor predicted to determine the progress of tourist villages. However, government support, completeness of infrastructure, community participation, multi-stakeholder partnership, and various tourist attractions are other essential factors that must be developed in integrated ways for tourist village development.

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Formulation of tourism industry and creative economy competitiveness index of provinces in Indonesia

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Abstract: This study proposes and calculates a new index called the Tourism and Creative Economy Industry Competitiveness (TCEIC) Index or Parekraf Index which aims to determine the description of the tourism industry and creative economy of each province in Indonesia. The index is then applied to investigate the Covid-19 pandemic effects and can be used for future planning and evaluating the involved parties in tourism sectors. The data used in this research is secondary data sourced from the publication of Tourism Industry Statistics and Creative Economy 2020 which is produced by a collaboration between the Ministry of Tourism and Creative Economy and the BPS-Statistics in 2021. Factor analysis was used to compile the index, following the Organisation for Economic Co-operation and Development (OECD). The implementation of the new Parekraf index to the 2020 pandemic data found that several provinces had very low scores, i.e. Sumatera and Sulawesi. This means that the central government should synergize with local governments in those areas and should be more sensitive and responsive to the tourism industry and the creative economy, especially on indicators that have a significant impact.

Keywords: covid-19, factor analysis, tourism industry, creative economy, competitiveness index.

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Introduction

The United Nations World Tourism Organization (UNWTO) stated that the tourism sector experienced significant development, so that it became one of the fastest growing economic sectors in the world. Tourism is allegedly one of the main sources of income for developing countries because it plays an important role in trade around the world. In addition, in 2019 tourism is ranked third in the world in terms of export earnings, representing 10 percent of Gross Domestic Products (GDP), 30 percent of service exports and one in every ten jobs in the world is in the tourism sector (UNWTO, 2020). There is a bilateral causality and positive long-run relationship between economic growth and Tourism development (Samimi et al., 2011).

Tourism sector contributes to the Sustainable Development Goals (SDGs), which are goals 8, 12, and 14 on inclusive and sustainable economic growth, sustainable consumption and production, and sustainable use of marine and marine resources. The importance of the tourism sector needs to be accompanied by tourism development in the national and local policies.

In Indonesia, the tourism sector is one of the potential sectors. An increase in revenues from international tourism visits from USD11.206 million in 2016 to USD12.520 million in 2017, with a contribution of 3.2% of the total international tourism visits to the Asia and Pacific region (Mardhani et al., 2021). Indonesia has a great potential shown by the number of tourists, which increased from 14.40 (2018) to 14.92 (2019) million tourists. Tourism sector contribution to economy from 2006 to 2018 is approximately USD 6.03–8.81 trillion, which directs contribution from USD 1.91 to 2.75 trillion in the same period.

The tourism industry and the creative economy are important pillars in Indonesia's tourism development system. At this time, the growth of the tourism sector and the creative economy shows positive growth so that the development of this sector is the focus of the government.

The Corona Virus Diseases 2019 (COVID-19) pandemic that has hit the whole world has shaken the stability of the industrial sector, including the tourism industry and the creative economy. The tourism industry is thought to be the sector most affected during the pandemic (Gössling et al., 2020). This is due to an appeal from the government to limit mobility and people are afraid to travel (Zheng et al., 2021). Several sectors that experienced a downturn during the COVID-19 pandemic are: (1) The accommodation and food and drink supply sector which experienced a decrease in output due to a decrease in the number of local and foreign tourists, because many events and activities such as meetings, parties, conferences at hotels have been canceled by the government and private agencies; (2) The Manufacturing Industry Sector, i.e. the Food and Beverage Industry, experienced a decline in output due to declining foreign demand, as seen from data on exports of food and beverage commodities; (3) The decline in rail and air transportation due to the small number of passengers as well as the cancellation of train and plane trips due to concerns about the spread of COVID-19 (Kementerian Pariwisata, 2020).

Prior to the evaluation of the tourism industry and the creative economy during pandemic for this research, we found a problem. This problem has previously been addressed by where there is a lack of standardization on the definition of the creative economy and no sample frame (Vaz et al., 2018). Currently, the tourism business sector which is categorized as the tourism industry and creative economy is engaged in 8 sub-sectors, including Tourism Transportation Services Business, Travel Services Business, MICE (Meetings, Incentives, Conferences and Exhibitions) Business, Tourism Information (Lestariningsih et al., 2019). Services Business, Tourism Consulting Services Business, Tour Guide Business, and SPA Business, as well as 16 sub-sectors. The Creative Economy sub-sectors consist of architecture, interior design, visual communication design, product design, photography, craft, culinary, music, fashion, applications and game developers, publishing, advertising, television and radio, performing arts, fine arts and film, animation, and video (Kementerian Pariwisata dan Ekonomi Kreatif, 2021). The creative economy will provide great benefits for the life of the Indonesian people because through the development of the creative economy, national economic resilience can be maintained (Marlinah, 2017).

The World Economic Forum (WEF) has grouped some factors that can affect a country's global competitiveness and lowered them into indicators as a measuring tool designed later to measure a country's competitiveness index. Factors and indicators that influence the assessment of a country's tourism competitiveness index continue to be developed by WEF as an effort to improve the quality of the reports it releases. Meanwhile, the level of competitiveness within a company has the meaning as the ability of a company to design, produce and/or market product advantages over the goods offered by competitors, in terms of price quality and non-price (D'Cruz, 1992). Furthermore, the level of competitiveness of a country depends on the capacity of its industry to innovate and upgrade itself. Competitive advantage is created and sustained through a localized process (Rajagukguk, 2016).

The importance of competitiveness is due to the following three things: (1) encouraging productivity and increasing self-reliance, (2) being able to increase economic capacity, both in the context of regional economics and the quantity of economic actors so that economic growth increases, (3) believing that the market mechanism creates more efficiency (Porter, 1998).

One of the important components in the development of national tourism is looking at the competitiveness of tourism. Currently, there is a world indicator to measure tourism performance for countries in the world, namely the Travel and Tourism Competitiveness Index (TTCI) issued by the World Economic Forum (WEF). However, there is no indicator that can see the extent of the development of the tourism industry and the creative economy of the provinces in Indonesia. TTCI at the provincial level is difficult to calculate because it requires 90 indicators that explain 14 different pillars (WEF, 2022). The TTCI method is also not suitable to be used to see the competitiveness of a company.

Meanwhile, there is a Business Competitiveness Index (BCI) which is also calculated by the WEF. The Business Competitiveness Index (BCI), based on this conceptual framework, provides a data-rich approach to measuring and analyzing the fundamental competitiveness of a large number of countries in a comparative context. BCI uses a microeconomic basis to derive its value (Porter et al., 2007).

Currently, there is no indicator that can be used to see the development of the tourism industry and creative economy in Indonesia. In fact, it takes a special and serious strategy from the government to increase the competitiveness of a region (Soeswoyo et al., 2021). The TTCI calculated by WEF only calculates the comparison among countries in the world and the unit of observation is a country. Therefore, we need a measurement in the form of a new index that is able to see the comparability among provinces with the unit of observation of the tourism industry and creative economy.

This study aims to propose a new index in the tourism industry and creative economy which is able to measure the condition of the tourism business industry and creative economy by looking at the index value among provinces in Indonesia. By using indicators adopted from TTCI and BCI, this composite index of Tourism and Creative Economy Industry Competitiveness (TCEIC) or Parekraf Index in the provinces in Indonesia is built with the limited availability of data sources. The new index is then applied for the first time to the data representing COVID-19 pandemic. We hope this new index and the output of this research can be used to support the national tourism development in Indonesia.

Methodology

In formulating competitiveness, WEF issues an index, namely BCI. BCI is calculated based on two sub-indices, namely (1) company operation and strategy; and (2) national business environment. In this research, the elements used in formulating Tourism and Creative Economy Industry Competitiveness (TCIC) Index or Parekraf Index are Industry Participation in Association Members, Marketing Outside District City, Origin of Foreign Inputs, Total Income, Legal Entity, Possessing Operational Permits, and Having Business Certificate Institutions. These elements are adjusted due to the availability of data on the tourism industry and the creative economy.

The data used in this research is secondary data sourced from the publication of Tourism Industry Statistics and Creative Economy 2020 which is produced by a collaboration between the Ministry of Tourism and Creative Economy and the BPS-Statistics in 2021. The publication is the result of the Tourism Industry and Creative Economy Survey 2021 which was carried out in 34 provinces of Indonesia.

The analytical method used in this research is factor analysis. Factor analysis is a multivariate analysis that is used to reduce or summarize many variables into fewer new variables called factors (Supranto, 2004). The analysis aims to condense the information contained in a number of original variables into a simpler set of variables (factors) by minimizing the loss of information from the original variables (Hair et al., 2017).

Factor analysis is an interdependence technique that involves multivariable data and is used to analyze variables that are thought to have a relationship with each other, so that the relationship can be explained and grouped into the right latent factors (Sharma, 1996).

In factor analysis, there is a random vector X with p components having a mean and a covariance matrix. The factor model states that X is linearly dependent with several unobserved variables called the common factors (F_1, F_2, \dots, F_m), and other sources of variation with a number of p , namely $1, 2, \dots, p$ which is called error or specific factor.

The stages of formulating the new indexing in this paper adopt the method used by the Organisation for Economic Co-operation and Development (OECD) as follows:

1. Building a theoretical framework and selecting variables/indicators. The framework should clearly define the phenomenon to be measured and its sub-components, and further select individual indicators and weights that reflect their relative importance and the overall composite dimension. This process should ideally be based on what it is intended to measure and not on which indicators are available.
2. Normalizing the data
The normalization method used in this study is the Min-Max normalization. The Min-Max method converts the indicator value to a value between 0 and 1.
3. Performing factor analysis.
Stages of factor analysis include data feasibility test, variable/indicator reduction, factor formation, factor matrix estimation, factor rotation, to produce factor scores.

4. Standardizing the factor score data

Standardization of factor score data is used to reduce the range of index factor values to a value of 0 to 1. In this study, the data normalization method used is the Min-Max method and then multiplied by 100 to facilitate interpretation (Haque, 2016).

$$f'_{ij} = \frac{[f_{ij} - \text{Min}(f_{ij})]}{[\text{Max}(f_{ij}) - \text{Min}(f_{ij})]} \times 100 \quad (1)$$

where:

f'_{ij} : i^{th} factor score of j^{th} province after standardization

f_{ij} : i^{th} factor score of j^{th} province

5. Determining the weights to be used

The weights used in this study are unequal weighting. The weight is obtained from the proportion of the explained variance by each factor with the total explained variance (OECD, 2008).

$$W_i = \frac{\text{Explained variances}_i}{\text{Total explained variances}} \quad (2)$$

where $\sum W_i = 1$

6. Performing aggregation

In this study, the aggregation method used is linear aggregation.

$$\text{Parekraf Index}_j = \sum_j \sum_{i=1}^k W_i f'_{ij} \quad (3)$$

Where:

Parekraf Index_j : Tourism and Creative Economic Industry Competitiveness Index of j^{th} province

W_i : i^{th} factor weight

f'_{ij} : i^{th} factor score of j^{th} province after standardization

7. Performing composite index decomposition

The decomposition of each forming factor in the composite index can be useful to explain the conditions behind the good or bad value of the composite index in an area.

8. Observing the relationship among the composite index and other indicators

This stage is intended to assess how well the composite index is able to explain the phenomena that occurs. The results of these assessments can be used to support the analysis of uncertainty and sensitivity. Observing the relationship and the magnitude of the relationship can be done by using a scatter plot and by calculating the Pearson correlation. In this paper, we observed and compared the relationship between Parekraf Index and the (Human Development Index) HDI and GDP per capita.

Results and Discussion

Results

As previously mentioned, the selection of indicators in the Parekraf Index refers to the WEF and the data used is collected from the publication of Statistics on the Tourism Industry and Creative Economy published by the Ministry of Tourism and Creative Economy. This is important to mention in order to ensure the availability of data based on the indicators suggested by WEF. In addressing the unavailability of the data suggested by the WEF, this study uses a proxy variable that is adjusted to the 2021 Tourism Industry and Creative Economy Survey data which was

carried out in 34 provinces. With this theoretical framework, 10 variables were chosen that describe the conditions of tourism and the creative economy industry in Indonesia, which are listed in Table 1. However, after the factor analysis, there was a reduction in the variables so that X8, X9, and X10 were excluded from the model, therefore they were not continued to calculate the index value.

Table 1. Indicators that Describe the Tourism and Creative Economic Industry 2020

No.	Indicator	Symbol
1	Percentage of Tourism and Creative Economy Industry Businesses by Association Member	X1
2	Percentage of the Tourism and Creative Economy Industries that market outside the region/city	X2
3	Percentage of the Tourism and Creative Economy Industry with foreign inputs	X3
4	Total Business Revenue of the Tourism Industry and Creative Economy	X4
5	Percentage of Tourism and Creative Economy Businesses that are legal entities	X5
6	Percentage of Tourism and Creative Economy Industry Businesses that have operational permits	X6
7	Percentage of Tourism and Creative Economy Industry Businesses that have already obtained certification from the Business Certification Institute	X7
8	Percentage of Workforce in the Tourism and Creative Economy Industry by Subsector and Education Level	X8
9	Percentage of Workforce in the Tourism and Creative Economy Industry by Subsector and Ownership of Competency Certification	X9
10	Percentage of Creative Economy Enterprises by Province and Ownership of Intellectual Property Rights (HKI)	X10

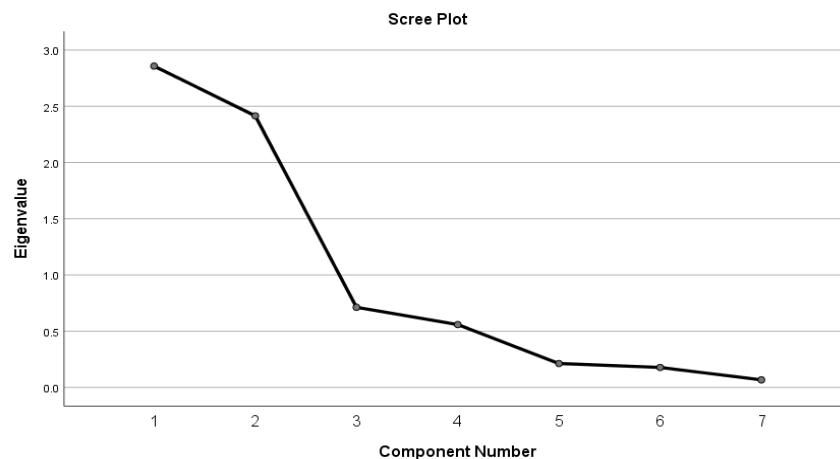
The first stage is to determine the direction of the indicator and to make it uniform so that there is no misinterpretation in analyzing and reading the output. This study uses a positive direction, where the greater the indicator value, the higher the Prekraf Index in the region. Next, the Min Max data normalization is performed.

The next stage is to perform factor analysis to reduce variables. In factor analysis, to test the feasibility of a data set for factor analysis is by performing the Bartlett and Kaiser-Meyer-Olkin (KMO) test. KMO value greater than 0.5 indicates the data is feasible for factor analysis (Hair *et al.*, 2017). In addition, the indicator reduction process considers the value of the anti-image correlation matrix (Measure of Sampling Adequacy or MSA) and the value of communality. Variables that have an MSA value of less than 0.5 must be reduced from factor analysis gradually with the smallest MSA value first. In addition, variables that have a communality value of less than 0.5 need to be eliminated according to Hair *et al.* (2010: 117). Based on the indicator reduction process, obtained 7 indicators can finally form a composite index. This process is described in Table 2.

Table 2. KMO and Bartlett's Test

Kaiser Meyer Olkin Measure of Sampling Adequacy		0.631
Bartlett's Test of Sphericity	Approx. Chi Square	148.134
	Df	21
	Sig.	0.000

The next step is to determine the weighting factor. At this stage, the factors are selected by looking at the scree plot and the eigenvalues according to the Kaiser criteria. The Kaiser criteria rule is a rule for determining the dominant factor by looking at factors that have an eigenvalue of more than one (OECD, 2008). Based on these rules, from the seven selected indicators, two dominant factors can be determined (Figure 1). The two dominant factors formed can explain 75.31 percent of the variance of the tourism industry at the provincial level.

**Figure 1.** Scree Plot Analysis of the Indicators Forming the Parekraf Index

If there is more than one dominant factor, aggregation is carried out by weighing. Factor weighing is obtained by comparing the percentage of variance explained by a factor and the total variance that can be explained by all dominant factors. Determination of the dominant indicator in a factor is seen based on the value of the largest loading factor of an indicator. Before determining the dominant indicator in a factor, it is necessary to rotate the factor to overcome an indicator that has almost the same loading factor value in a factor. The rotation carried out is the varimax method. After that, each factor is named based on the dominant indicators that make up the factors (Hair et al., 2017). A summary of these calculations can be seen in Table 3.

Table 3. Formation of Factor Weighting after Determining Factors

No.	Factor	Indicator	Symbol	% of Variance	Weight
1	Company operation and strategy	Percentage of Tourism and Creative Economy Industry Businesses by Association Member	X1	40.81	0.54
		Percentage of the Tourism and Creative Economy Industries that market outside the region/city	X2		
		Percentage of the Tourism and Creative Economy Industry with foreign inputs	X3		

		Total Business Revenue of the Tourism Industry and Creative Economy	X4		
5	National business environment	Percentage of Tourism and Creative Economy Businesses that are legal entities	X5	34.49	0.46
		Percentage of Tourism and Creative Economy Industry Businesses that have operational permits	X6		
		Percentage of Tourism and Creative Economy Industry Businesses that have already obtained certification from the Business Certification Institute	X7		

Discussions

After getting the number and weighing factors, a factor score will be obtained for each factor. The score of the formed factor produces a value in the form of a z-score. This results in the value of the factor score having a range of values from positive to negative. A composite score with such a range will be difficult in the analysis because it cannot know the maximum and minimum values that can be achieved. Therefore, to make it easier to interpret, the factor score is transformed into an index that has a maximum value of 100 and a minimum of 0, namely by standardizing min-max multiplied by 100. This method is also used by (Haque, 2016) in the active preparation of the aging index. Furthermore, to obtain the composite index value, the results of the multiplication between the weights and the factor scores of each factor have been normalized using the following formula 3.

$$\text{Parekraf Index} = (0.54 \times \text{Factor 1}) + (0.46 \times \text{Factor 3}). \quad (3)$$

The Parekraf Index is presented for each province through Figure 2. The index size is in the range between 0 and 100. A higher index value in a region indicates that the tourism industry and creative economy in that region are more competitive than other regions. In Figure 2, areas with a high index value are indicated by a darker color, while areas with a low Parekraf Index are indicated by a lighter color. Based on the map, most areas on the island of Java have relatively dark colors, which means that during the 2020 pandemic, the conditions of the tourism industry and the creative economy on the island of Java are mostly relatively better than provinces on other islands, especially in Sumatera and Sulawesi. The condition of tourism in Java Island is relatively better because most tourists choose tourist attractions that have many supporting facilities and technologies such as the internet and information technology (Yusendra, 2015).

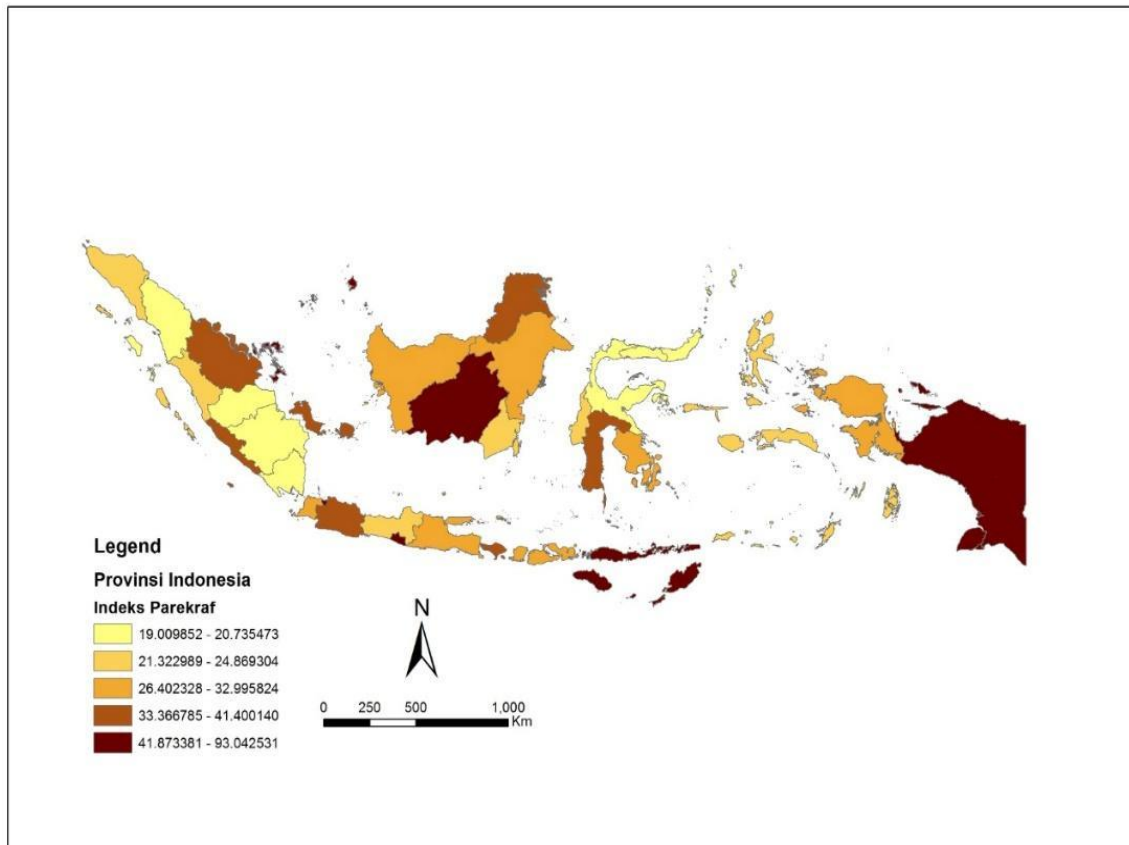


Figure 2. Distribution of the Parekraf Index in Indonesia

Table 4. Grouping of provinces in Indonesia based on the Parekraf Index

Very Low	Low	Medium	High	Very High
Sumatera Utara Jambi	Aceh Sumatera Barat	Jawa Timur Banten Nusa Tenggara Barat	Riau Bengkulu Kepulauan Bangka Belitung	Kepulauan Riau DKI Jakarta Daerah Istimewa Yogyakarta Nusa Tenggara Timur Kalimantan Tengah Papua
Sumatera Selatan Lampung	Jawa Tengah Kalimantan Selatan	Kalimantan Barat	Jawa Barat	
Sulawesi Utara Sulawesi Tengah Gorontalo	Sulawesi Barat Maluku Maluku Utara	Kalimantan Timur Sulawesi Tenggara Papua Barat	Bali Kalimantan Utara Sulawesi Selatan	

Relationship between Parekraf Index and HDI

To evaluate whether the results of Parekraf Index is scientifically acceptable, we compare its relationship with the HDI. The identification of the relationship between Parekraf Index and HDI in 2020, because we know that the HDI has been standardized for use at the national or international level. In addition, we believe that theoretically the two indices have a relationship. This is due to the importance of human capital as input and output in the components of economic development (Todaro & Smith, 2006)

The result shows that, with a 95% confidence level, there is a significant correlation between the Parekraf Index and the HDI of 0.419. This illustrates that there is a moderate and positive relationship between the two indices. The result indicates that good quality of human resources is related to the good condition of the tourism industry . and low quality of human resources is also related to low condition of tourism industry and creative economy (Figure 3).

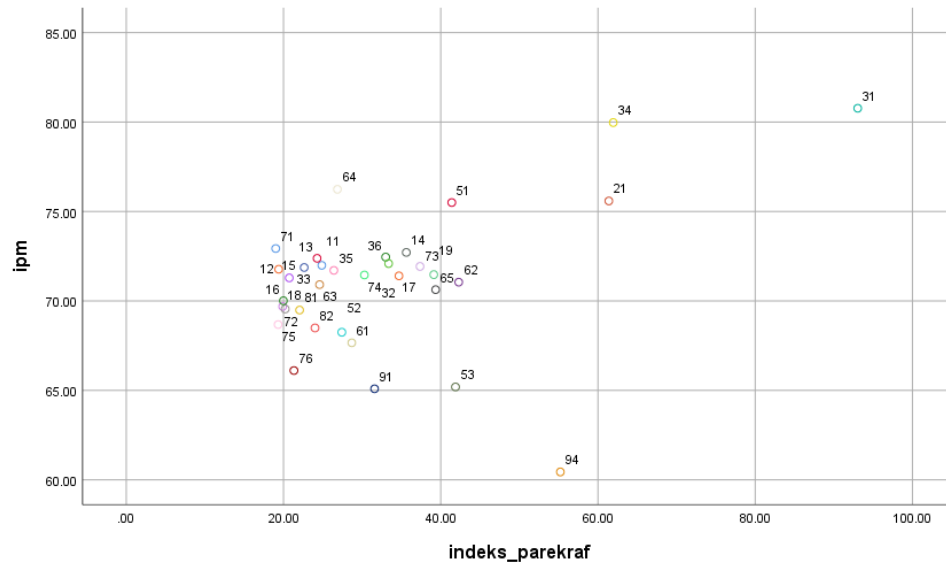


Figure 3. Scatter Plot between Parekraf Index and HDI

Relationship between Parekraf Index and GDP per Capita

Gross Regional Domestic Product (GRDP) per capita describes the economic condition of a population in a region. The better the economic condition of a population, which is marked by a large per capita GRDP value, the better the drive of the industrial sector, including the tourism industry and the creative economy. Figure 4 presents the relationship between Parekraf Index and GDP per capita with a positive relationship pattern. The results of calculations using Pearson coefficient show a correlation value of 0.617 which is significant at the 95% confidence level. This explains that the higher the GDP per capita in an area, the higher the Parekraf Index, or the development of the tourism industry in the area is getting better. The result is in line with Pedak stating that the tourism sector has a significant positive influence on GDP (Pedak & Mellander, 2018) .

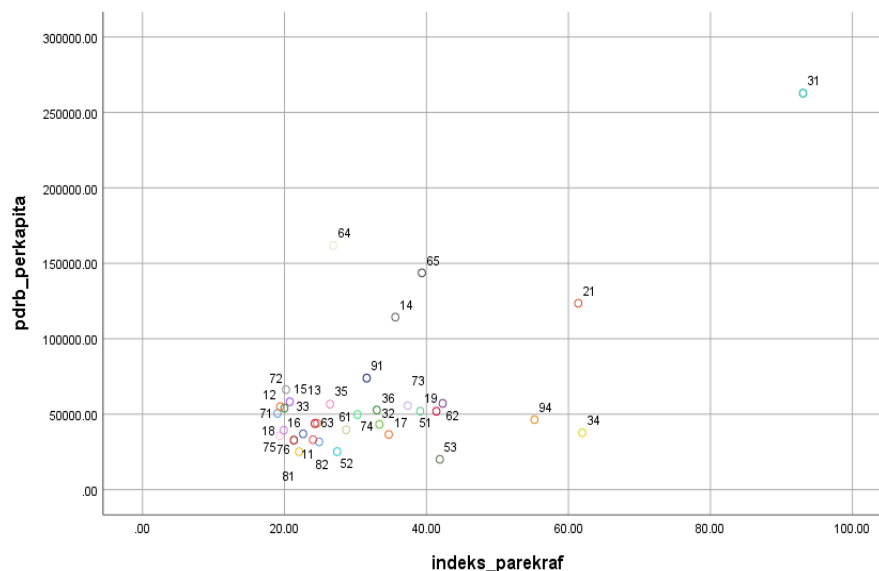


Figure 4. Scatter Plot between Parekraf index and GDRP per Capita

Conclusions

Based on the discussion, the indicator framework in this research is based on the UN WTO TTCI indicators. Based on this framework, data adjustments and indicator selection were made to obtain final 7 indicators of Tourism and Creative Economy Industry Composite (TCEIC) index or Parekraf Index. Based on the stages of forming the composite index that have been carried out, two factors are formed in building the Parekraf Index. The first factor is "Company operation and strategy", the second factor is "National business environment. The factor weights are 0.54 and 0.56.

Based on the results of grouping provinces into five groups using the quantile method, there are seven provinces that are grouped as having very low Parekraf Index, namely North Sumatera, Jambi, South Sumatera, Lampung, North Sulawesi, South Sulawesi, and Gorontalo. Then, seven provinces belong to the low Parekraf Index group, seven provinces fall into the medium or medium Parekraf Index group, and seven provinces fall into the high Parekraf Index group. The remaining six provinces are categorized as having very high Parekraf Index, namely Kepulauan Riau, DKI Jakarta, D.I Yogyakarta, NTT, Middle Kalimantan, and Papua.

The relationship or correlation between the resulting Parekraf Index and HDI shows a significant and moderate relationship. This shows that human capital has a relationship with the conditions of the tourism industry and the creative economy. In addition, the correlation between the Parekraf Index and GDP per capita shows a significant positive relationship which proves that the high level of the economy of the population in an area is related to the development of the tourism industry and the creative economy. From the relationship between the Parekraf Index and the macro indicators above, it can be concluded that the Parekraf Index is quite appropriate in describing the conditions of the tourism industry and the creative economy in Indonesia in 2020.

For the government, a policy can be taken that focuses on improvements in factor one, i.e. Company operation and strategy (X1, X2, X3, X4) because it has a greater variation in determining the value of the Creative Economy and Creative Economy Index.

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Model of communicative constitution of organization in the management of Borobudur Temple

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Abstract: The purpose of the research is to build a model of the communicative constitution of the organization to overcome the problem of differences in plans and develop a travel pattern of thematic visits with the storytelling method to overcome the buildup in Borobudur Temple, Central Java, Indonesia. The type of research used is a quality approach with data collection through observation, interviews, and documentation. The study's results integrated communication and coordination between the Badan Otorita Borobudur and the governing body managing the Borobudur Temple Area. As a solution to the problem, a model of the communicative constitution of organization to integrate goals in the direction of the temple area through communication flows with membership negotiations, self-structuring, coordination of activities in corporate activities, and institutional positions between managers in the organization communication activities and coordination. The model of the communicative constitution of organization will be a solution to integrate the goals of several ministries with different objectives in managing the Borobudur Temple Area.

Keywords: model, communicative constitution of organization, management, Borobudur Temple.

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Introduction

Borobudur Temple was built in the 8th century, and the construction of Borobudur Temple is estimated to have been carried out between the 8th and 9th centuries; it took 75 to 100 years to be completed during the reign of King Samaratungga. Trimaryanto & Aldriyanto (2019), the establishment of Borobudur Temple as a masterpiece of Buddhist architecture left by the Ancient Mataram Kingdom located in Magelang, Central Java. The British Governor-General founded Borobudur Temple. About 2,672 relief sculptures are scattered in the temple, measuring 123 x 123 meters. A total of 1,460 tell the story of the Buddha; the rest are just decorative reliefs.

Borobudur Temple, as a cultural attraction, has its interest compared to other attractions. According to Burn & Holden (1995), sustainable tourism, on the one hand, tourism can provide benefits for the government, surrounding communities, and managers. On the other hand, tourism activities will damage cultural heritage. Wati (2022) states that utilization of Cultural Heritage is for the greatest benefit of the welfare of the people while maintaining its sustainability.

Based on the Law of the Republic of Indonesia No.11 of 2010, Borobudur Temple is divided into 3 (three) zones, namely Zone I, which is the core zone of the sanctuary zone (Archaeological Environment Preservation). Zones of protection and prevention of destruction of the physical environment and the archaeological environment. Zone 2 is a buffer zone (Archaeological Park Zone) which is a zone for the provision of parking facilities for the convenience of visitors and the preservation of the historic environment. Zone 3 is a development zone (Land Use regulation). This zone is a limited residential area, agricultural area, and green line.

Borobudur Temple and its Area are currently under the management of the Ministry of Education and Culture, the Ministry of Tourism, the Ministry of SOEs, the local government, the Badan Otorita Borobudur (BOB), and the governing body, namely the Balai Konservasi Borobudur (BKB) and PT. Taman Wisata Candi (PT.TWC). Each managing body has its functions, duties, and objectives, including (1) The Balai Konservasi Borobudur (BKB) has functions and duties, namely maintaining, preserving, and protecting the Borobudur temple, (2) PT. Taman Wisata Candi (PT.TWC) has a function and task to bring in a level of visitation or commercial. In carrying out its functions and duties in managing the Borobudur Temple Area, Badan Pengelola (the managing body) must pay attention to the principles of balance between various elements that integrate and influence each other.

The Badan Otorita Borobudur (BOB) coordinating body between the managing body (the Badan Pengelola) has the authority to map the Borobudur Temple. It has a function to support activities related to the fulfillment of amenities, attractions, and accessibility. Referring to the theory of organizational communication, Miller (2012: 156) stated key communication functions in group communication can decrease the risk of groupthink in decision-making collectives," which means that organizational communication functions in group communication can reduce the risk of group thinking in decision making. According to Werner (2005), the solution to the bureaucratic crisis is to carry out strong interpersonal cooperation among members of a strong cultural organization acting as an actor in the organization. The Badan Pengelola is PT. TWC and BKB, in managing the Borobudur temple area, are responsible for their respective zones or regions. Zone 1 is operated by BKB, which focuses on preserving and protecting Borobudur Temple. Zone II PT. Taman Wisata Candi focuses on commercial revenue or profit and increases the number of visits. The problems in this research are (a) the lack of communication between communicative organizations between managers in carrying out the management of the Borobudur Temple Area and (b) the difference in objectives between PT.TWC and BKB.

PT.TWC and BKB each have different lines of command or command that are complicated to integrate in terms of communication and coordination. According to McPhee and Zaug (2000), organizations are formed through four types of message streams, addressed to four different types of audiences, identifying these flows as follows: membership negotiations, self-structuring, coordination of activities, and institutional positions. Organizational Communication Model between PT.TWC and BKB, in managing the Borobudur Temple Area, emphasizes the communicative constitution of organizations (CCO) model. Communication model and message flow between PT. TWC and BKB are depicted in the following message flow n-flow: (a) membership negotiation. Occurred between PT TWC and BKB through a coordination meeting on handling technical problems, (b) self-arrangement, namely BKB contingent on the Preservation and Care of cultural heritage in the Borobudur Temple Area. Meanwhile, PT. TWC concentrates on the heritage park, cultural park, amenities, and attractions business which focuses on business innovation to be used as a tourist destination and develop attraction activities and other economic activities in the Borobudur Temple Area, (c) coordination activities, namely improving coordination and integrating activities and activities, and (e) institutional position is equality in the Badan Pengelola with the control of the authorized agency and related ministries in the management of the Borobudur Temple area.

In this research, it produced a renewal in the journal of organizational communication in the context of managing temple areas that are historical relics, especially in Indonesia. The novelty of this research is the study of the creation of a communicative organizational constitution model with the concept of communicative constitution of organizations (CCO) that can be used by Borobudur Temple Area Management.

Methodology

Qualitative research paradigm is a study that places humans as research subjects (Moleong, 2012). This research uses a qualitative design and approach that illustrates creating a communication model in managing the Borobudur Temple Area. This study is descriptive because

it aims to describe the findings of the phenomenon of communication models between the managers of Borobudur Temple and its area (Ministry, BOB, PT. TWC, and BKB). The classification of researcher types uses a variety of terms for the kind and design of the research.

This research identifies and uses a qualitative approach that describes a finding, namely the organizational communication model, as a solution to problems in managing the Borobudur temple area. According to Hidayat (2003: 26) in Griffin (2004: 30), the paradigm determines the way of looking at reality and at the same time is a fundamental belief system that directs the flow of thought to determine the choices of approaches used and how it is carried out in the field by researchers. The discussion in this research is based on the paradigm of post-positivism. According to Salim (2006: 71), the paradigm of post-positivism methodologically, the use of approaches through observation is considered insufficient and must be complemented by other methods, namely the use of various forms, data sources, researchers, and theories. The main context of this research is organizational communication in managing the Borobudur temple area.

Results and Discussion

Results

Badan Otorita Borobudur (BOB)

The Borobudur Temple area is currently under the management of the Ministry of Education and Culture, the Ministry of Tourism, the Ministry of SOEs, the local government, and the Badan Otorita Borobudur (BOB), which was formed through Presidential Regulation number 46 of 2017. Wedatama (2018), the entry of Borobudur Temple into the National Tourism Strategic Area and 5 National Priority Destinations in 2017 is proof that the development of Borobudur Temple and the surrounding environment will increasingly become a supporting capacity for the creation of Borobudur Temple as a leading tourism. The Badan Otorita Borobudur was established as one of the government's efforts to accelerate the Central Java tourism development acceleration program, especially in the Borobudur Tourism Area. BOB is a work unit under the auspices of the Ministry of Tourism and Tourism that can carry out its duties and functions as the Implementing Agency of the Borobudur Authority has the following responsibilities: (1) coordinate, synchronize, and facilitate planning, development, development, development, and control in the Borobudur Tourism Area, (2) carry out planning, development, development, management, and control in the Borobudur Area. Zahara (2018) stated communication in a leadership is a very important element in achieving the success of the goals that will be achieved by an organization". Bob's function and authority in management are to support the activities in the Borobudur Temple Area and complete the shortcomings of complete amenities, attraction activities, and accessibility to get to the temple area.



Figure 1. Location Map of BOB Authoritative Areas in Java Island

BOB, the implementer of the Ministry of Tourism and Creative Economy, has an informative function, namely processing information and policies for the management of the Temple Area for smooth organizational activities at the Implementing Agency. According to Ikhfan (2020: 32) the functions of communication in organizations are grouped into informative, regulative, persuasion and integrative functions. The regulative role, namely BOB and the Implementing Agency, has regulations and guidelines the organization has set to guide that will be used in managing the Borobudur Temple Area. The persuasive function is that the Implementing Agency persuasively always communicates through coordination meetings between the Badan Pelaksana and its staff in overcoming technical problems in the Borobudur Temple Area. The integrative function, namely BOB, functions to unite and make understandings between the Implementing Agencies to achieve goals by their respective visions and missions.

Referring to Miller (2012: 156), key communication functions in group communication can decrease the risk of groupthink in decision-making collectives," which means that organizational communication functions in group communication can reduce the risk of group thinking in decision-making. Technically, the Borobudur Temple Area is managed by 2 (two) Implementing Agencies, namely the Balai Konservasi Borobudur (BKB), under the supervision of the Directorate of Culture of the Ministry of Education and Culture and PT. Under the Ministry of SOEs, Taman Wisata Candi (PT. TWC), in carrying out its functions, duties, and authorities, the organizational structure is formed according to their respective zones.

Balai Konservasi Borobudur (BKB)

Borobudur Conservation Center is a unit or Technical Implementation Unit which is administratively under the direct coordination of the Directorate General of Culture, Ministry of Education and Culture. Meanwhile, in the technical aspects of preserving the National Cultural Heritage Area and its responsibility to UNESCO in terms of protecting the Borobudur Temple Complex as a world heritage.



Figure 2. Zone 1 area of Borobudur temple BKB management

According to Ardiwidjadja (2018: 57), preserving and developing culture including cultural heritage can be done by loving culture and protecting the value of cultural knowledge contained to develop. Based on the Regulation of the Minister of Education and Culture Number 26 of 2020 dated June 30, 2020, concerning the Organization and Work Procedures of the Technical Implementation Unit of the Ministry of Education and Culture that BKB has the following duties and functions: (1) task namely carrying out conservation and preservation of Borobudur Temple and Borobudur Cultural Heritage Area and (2) its functions, namely: (a) implementation of conservation studies on civil engineering aspects, architecture, geology, biology, chemistry, and archaeology of Borobudur Temple and other cultural reserves, (b) implementation of security, maintenance, and restoration of Borobudur Temple, Mendut Temple, Pawon Temple, and Borobudur Cultural Heritage Area, (c) implementation of the development and utilization of Borobudur Temple, Mendut Temple, Pawon Temple, and Borobudur Cultural Heritage Area, (d) implementation of documentation and publication of Borobudur Temple, Mendut Temple, Pawon Temple, and Borobudur Cultural Heritage Area and (e) Implementation of Partnerships in the field of conservation and preservation of Borobudur Temple, Mendut Temple, Pawon Temple, and Borobudur Cultural Heritage Area

PT. Taman Wisata Candi (PT. TWC)

PT.TWC aims to do business in the field of environmental management of Borobudur Temple and other historical and ancient relics as a Tourism and Business Park in different areas of tourism, as well as optimizing the use of its resources. PT.TWC manages tourism in the Borobudur Temple environment and strives for the destination to become a Cultural, Educational, and Creative Tourism Park.



Figure 3. Area Zone 2 of the Borobudur Temple Area

According to Aji (2012), one of the efforts made by the community around Borobudur Temple is to improve the standard of living by opening jobs in the field of trade and in the field of services, this is because Borobudur Temple is a tourist attraction that is visited by many tourists, both domestic and foreign tourists. Activities of PT. TWC in carrying out the Company's business is as follows: (a) managing the environment of Borobudur Temple, Prambanan Temple, and Ratu Boko as well as other ancient historical relics as a tourist park, including technical planning activities, maintenance, and supervision of the environment, one and another by applicable laws and regulations; (b) plan and develop and utilize infrastructure, facilities and other public facilities within the Temple Tourism Park environment for tourism activities; (c) conduct other business activities in the field of tourism; and (d) use other business activities related to tourism to support the above activities. The company's main activities are doing business in the field of environmental business of Borobudur Temple, as well as other historical and ancient relics as a Tourism Park and Business in other tourism fields, as well as optimizing the use of resources owned by the Company to produce high-quality and strongly competitive goods and services to pursue profits in order to increase the value of the Company by applying the principles of a Limited Liability Company.

Discussions

The Communicative Constitution of Organization Model

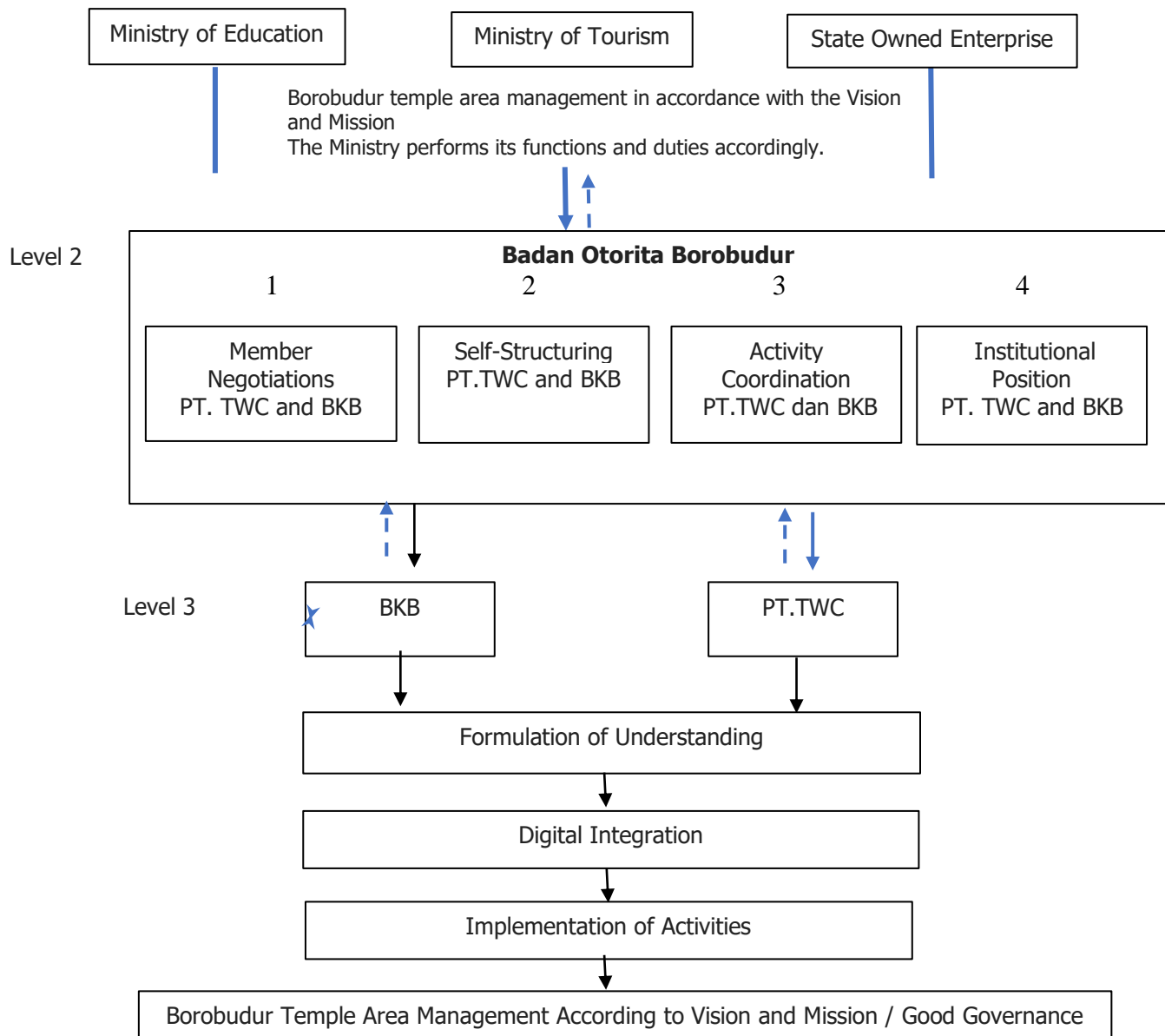
This study will examine and describe the model of communicative constitution in public organizations by taking reference to the results of research related to the context of the implementation of organizational communication carried out by the Government and tourism area managers. In previous research, as according to Alom (2018), in Proactive transparency and outward accountability of frontline public bureaucracies: an integrated model, namely "a model that describes how alternative mechanisms of accountability of frontline public bureaucracy are influenced by several organizational factor". An alternative mechanism called accountability to the organization refers to the participation of the members of the organization. And the results of research on the Communicative Constitution of Organizations (CCO), according to McPhee & Zaug (2000), organizational forms are formed through four types of message flows, addressed to four different types of audiences, identifying these flows as follows: membership negotiation, self-structuring, activity coordination, and institutional positioning.

Goldhaber (1993) explains that organizational communication is the process of creating and exchanging messages in a network of interdependent relationships with each other. Organizational communication in the management of the Borobudur Temple Area involves several managers

ranging from ministries, authority agencies, and PT.TWC and BKB, in the implementation of their duties, authorities, and functions to achieve organizational goals, must communicate with each other communicatively, integrate into the performance of activities, and coordinate with each other by the hierarchy. The communication hierarchy process is the delegation of duties from the ministry through the relevant Director General to the Badan Otorita Borobudur. The activities of the Implementing Agency in managing the Borobudur Temple Area report to the relevant Ministries related to the distribution and conservation activities carried out by BKB, while those associated with the level of visits and management of the Temple Area by PT. TWC to BUMN. According to Ayu (2017), the organizational communication process is "the communication process in code of conduct activities takes place in two ways communication with the direction of information flow that occurs, namely downward communication, upward communication, and horizontal communication so that the pattern of the organizational communication network formed is an all-channel network pattern." Governance and institutions in the management of Borobudur Temple involve several agencies, including BOB and PT. TWC and BKB each of these institutions have their functions and authorities, of course, experiencing some technical problems in achieving organizational goals.

To overcome this problem, researchers developed a communicative corporate constitutional communication model so that messages or information from policymakers, in this case, the ministry, can be adequately conveyed. BOB, as a coordinating body, carries out its duties to support the operational activities of the Badan Pengelola. Weber (2004) discussed authority, specialization and regulation with its implementation is to carry out established procedures. The problems that often occur are caused by instructions or policies that must be better communicated to Badan Pengelola. The Communicative Organizational Constitutional Communication Model is urgently needed to establish good communication. John (2009: 363) in the book *Communication Theory: Theories of Human Communication*, mapping related to the perspective of socio-psychology with the organizational context, it is expressed in this theory that the principles of authority, specialization and rule. Considering that several ministries manage Borobudur Temple and operationally involve several managers, the communication model needed is how transmission can form an organization that can integrate from the objectives of Badan Pengelola, which has been coordinating if there are technical problems in the field. Alom (2018), a model that illustrates how alternative mechanisms of frontline public bureaucratic accountability are influenced by several organizational factors. An alternative mechanism is called accountability in organizations that refers to partisanship in members of the organization. Researchers examined the communication model carried out by several managers of the Borobudur Temple Area above with a communicative organizational constitutional communication model that the Borobudur Temple management can carry out as a communication model that can be used for problem-solving.

According to McPhee & Zaug (2000), the form of an organization is formed through four types of message streams addressed to four different types of audiences, identifying these flows as follows: membership negotiation, self-structuring, coordination of activities, and institutional position. The organizational Communication Model among several managers refers to the communicative constitution of organizations (CCO) model. Follow the image of the communication model of the form of the PT. TWC and BKB are as follows:



(Source: Data Processing, 2022)

Figure 4. The Communicative Constitution of Organization in the Management of Borobudur Temple Area

Figure 1 explains the description of communication channels in the management of Borobudur Temple Area using the communicative Organizational Constitution Model. Organizational communication model between several ministries, BOB, PT. TWC and BKB in managing Borobudur Temple Area, namely by emphasizing the communicative constitution of organizations (CCO) model. According to Griffin (2004), organizational communication follows classical management theory, and the principles of classical management theory are: kesatuan command, the employee receives only a message from one superior of the scalar chain of authority from superiors to subordinates, which moves from top to bottom for the organization; this chain resulting from the principle of unity of command should be used as a channel for decision making

and communication. According to Mulawarman (2019), downward communication in an organization that information flows from high-authority positions to those with lower authority. The communicative Organizational Constitutional Communication Model in the picture above explains: (a) foreigners-each ministry coordinates with each other to carry out or carry out the management of Area Candi Borobudur by the Vision and Mission that has been made. (b) foreigners carry out their functions and duties according to their objectives, (c) the three ministries provide the primary duties and roles, authorities, and responsibilities to the Badan Otorita Borobudur to coordinate the activities carried out by BKB and PT TWC, (d) the Badan Otorita Borobudur makes a management plan for the Borobudur Temple Area based on the institutional structure.

Conclusions

This research concludes that the flow of communication from the Ministry to BOB and from BOB to BKB and PT.TWC is coordinative in delegating primary duties and functions, authority and responsibility. Meanwhile, BKB and PT.TWC to BOB, communication from the bottom up is coordinative in terms of reports on the results of TUPOKSI. The results of this research are a solution to integrate forms of coordination between BOB with PT.TWC and BKB, BOB in overcoming the problem of differences in goals that are the functions and authorities of the organization and bureaucracy. This study suggests that a communicative organizational constitutional communication model will be a solution to integrate the goals of several ministries with different purposes in managing the Borobudur Temple Area. The Borobudur Authority Agency as the implementer of the church, should be able to coordinate and integrate and communicate all activities in the management of the Borobudur Temple Area to the technical implementing BKB and PT.TWC. They are implementing Agencies, in this case, BKB and PT.TWC should always coordinate the implementation of activities and report to Badan Otorita Borobudur.

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Community enthusiasm in developing Ombilin coal-mining industrial heritage in Sawahlunto, West Sumatera

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Abstract: The purpose of this research is to gain an understanding of the community's attitudes toward the development of Sawahlunto, West Sumatera, Indonesia as an industrial heritage tourism destination. This research used mix method – explanatory sequential design with a case study approach, to explore real conditions in life as well as a contemporary setting or context. Community attitudes were measured using questionnaires and deepened by interviews, observations, and focus group discussions. The finding of this study shows the enthusiasm of the local community in developing Obillin tourism in order to preserve as well as revitalize it so that it can benefit the community. The results of this study can be important for policymakers regarding sustainable tourism development.

Keywords: community-based tourism, industrial heritage tourism, sustainable tourism, Ombilin coal-mine.

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Introduction

In the last two decades, the face of world tourism has undergone many changes. Tourism is no longer seen as a fun and hedonistic activity centered on tourist satisfaction alone, but an activity that can provide welfare to the stakeholders involved (Ardika, 2018). Tourism development carried out by various countries is currently oriented towards the concept of sustainable tourism.

Sustainable tourism is a tourism concept that fully considers the impacts arising from the tourism activities themselves from the socio-economic and environmental aspects in the present and the future. While on the same hand it can also meet the needs of tourists, industry, the environment and local communities (UNEP & WTO, 2005). This concept is increasingly being used as an approach to tourism development as awareness of responsible tourism development increases.

Improvement in tourism performance in Indonesia has encouraged the government to designate this sector as one of the country's leading sources for generating foreign exchange. This increase in performance can be seen in the following macro indicators: the increase in contribution to national GDP, namely 4.25% in 2015 to 5.25% in 2018; increase in foreign exchange, namely 175.71 trillion rupiah in 2015 to 224 trillion rupiah in 2018; and an increase in the number of workers, namely 10.36 million people in 2015 to 12.7 million people in 2018. Along with the increase in tourism performance, tourism actors in Indonesia are becoming increasingly passionate about developing their destinations. This can be seen from the emergence of various new destinations throughout Indonesia.

Sawahlunto is one of the areas in West Sumatra which is famous for its coal mines which have been owned since colonial times. Many coal mines in Sawahlunto are no longer operational and are currently a tourism destination. The specialty of Sawahlunto is the Ombilin coal mine which has just been declared a world heritage by UNESCO in 2019.

The legacy of the Ombilin coal mine in Sawahlunto is designated as a cultural heritage because it shows the exchange of local information and technology with European technology regarding coal exploitation in the late 19th to early 20th centuries. Ombilin Sawahlunto has been considered an outstanding role model as a one of a kind building, architectural work and combination of technology or landscape that depicts important stages in human history. According to Rohaendi et al. (2022), it is very crucial to do preservation and revitalization so that this historical site can be maintained.

However, development on tourism will not be fully successful if they haven't been supported by the community in the area. Understanding the habits from the population towards local tourism development is very important, sustainability and success in realizing tourism development depends on the active participation of citizens (Yoon et al., 2001). The economic solution for a country or region that can be provided is tourism, but it is important to know the aspirations of the people who are directly affected by this development (Dwyer, et al., 2004).



Source : <https://whc.unesco.org/en/list/1610/>

Figure 1. Ombilin Coal Site in Sawahlunto

Sustainable tourism itself is intended to be a form of tourism development that always pays full attention to current social, economic and environmental impacts (UNWTO, 2013). The concept of sustainable tourism focuses on balancing tourism development with people, customs and various environmental issues (Presenza et al., 2005). Sustainable development with the coexistence of tourism development and environmental quality is considered important in the tourism sector, because in the future such development can meet the needs of tourists, protect physical locations, and improve the quality of life of residents, provide opportunities to increase economic growth, increase future opportunities (Lee, 2013).

Sustainable tourism development is difficult without the support and participation of the community, local community support is a good starting point for sustainable tourism development (Zhu et al., 2017). Understanding community support for sustainable tourism development is an important factor in the successful management and marketing of community-based tourism, such support takes the form of nature-based tourism, ecotourism, rural tourism, and heritage sites (Lee, 2013).

It can be said that based on this perspective of sustainable development, increasing their positive perception and belief in tourism, increasing benefits for local residents, reducing their costs from tourism, and awakening their attachment to the community will help increase their

support for tourism development (Zhu et al., 2017). Perceptions, attitudes and behavior of local people about the potential for sustainable tourism development in their places are very important. Tourism development potential (TDP) is a description of the existing foundations in developing tourism which is one of the assessments in predicting future tourism development. (Elliot et al., 2011).

With the global tourism industry maturing, it is important to have a better understanding of the attitudes of local people towards the factors and tourism development that influence the attitude of historical-cultural villages to compete in international markets, especially for the development of sustainable tourism (Zhu et al., 2017).

One of the important factors in the sustainability and success of tourism development depends on the active participation of citizens in carrying out local tourism development which is based on an understanding of the attitude of citizens towards the very important developers and the government. (Dwyer et al., 2004; Yoon et al., 2001).

Given the importance of impacts perceived by the people, government investment in predicting livelihoods and implementing more community activities will help villages with historical and cultural value through the support of residents to promote industries. I would really help and encourage residents to participate in these programs as they can. sustainable tourism (Zhu et al., 2017). Sustainable tourism management of these villages is a way to strike a balance between local economic development and nature conservation (Caton & Santos, 2007). Public perception of tourism impacts is an important issue that has received much attention in the tourism literature (Almeida-García et al., 2016; Nunkoo & Gursoy, 2012).

Community-based tourism is a form of tourism development managed by local communities (Rocharungsat, 2008; FACET, 2011). The population is the main stakeholder when it comes to tourism development, the perception of the population is an important determinant of whether the development will be successful or not. (Long et al., 1990). Diedrich and García-Buades (2009). Lee, 2013, argues that the reason people support tourism development is because they think the benefits generated will be much higher than the costs to be incurred. CBT provides an opportunity for residents to enhance their traditional social or cultural identity, as well as increase the social coherence of the community (Choi & Sirakaya, 2006).

Residents who value local resources and support tourism development will show more engagement with tourism (Shakeela & Weaver, 2018). Hunt & Stronza (2014) also found that non-participating residents tended to have more negative attitudes towards tourism than participating residents. Encouraging residents to participate in tourism and providing non-economic benefits can increase residents' positive attitudes (Hunt & Stronza, 2014). To achieve sustainable development of CBT, residents must be provided with natural sustainability life satisfactions such as material well-being, community well-being, emotional well-being, and health and safety well-being (Woo et al., 2015); if this is achieved, residents will then contribute to CBT sustainability. (Kim et al., 2013).

Tourism plans should be planned as thoroughly as possible. If not carefully prepared, tourism development can cause serious problems for local residents, such as pollution of sewage and water resources, and loss of biodiversity (Teh & Cabanban, 2007). If that happens, people's perceptions of tourism impacts and their attitudes towards tourism development will shift from positive to negative (Lee, 2013; Woo et al., 2018). Community views can change from time to time depending on the state of tourism development (Diedrich & García-Buades, 2009; Hunt & Stronza, 2014; Lundberg, 2015). This indicates that the potential of tourism development can directly affect people's attitudes towards tourism development, and that the potential of tourism development has a direct and large positive effect on supporting tourism development (Zhu et al., 2017).

Industrial heritage tourism is a subset of cultural tourism and refers to "the development of tourism and industrial activity in man-made sites, buildings and landscapes resulting from early industrial processes" (Edwards & Coit, 1996: 342). Industrial cultural heritage identified and repackaged as places of historical, technological, social, architectural or scientific value (TICCIH, 2003)

Turning the site into a tourist spot can help promote the value of the industrial past and can enhance the identity of the residents that make up the character of an old industrial city (Xie,

2015). The importance of industrial heritage and the function of industrial heritage tourism has received attention at all levels, from grassroots organizations to governments, and because of this, industrial heritage tourism is now a significant socio-economic phenomenon (Xie, 2006). Industrial heritage tourism creates a new territorial identity that blends local heritage with global developments, realism and romance, heritage fetishization and environmental creativity (Xie, 2015).

As stated by UNESCO (2013), industrial heritage must be viewed as an important aspect of world civilization, because industrial heritage has an inherent educational value, which can and is used to help future generations learn about history and most importantly, these industrial resources embodying a distinctive place identity and creating a source of pride for local residents (Xie, 2015).

Despite the positive reaction to tourism development which is seen as an alternative to revive the local economy, community attitudes and awareness can critically influence the reconstruction process, when tourism projects are implemented, local people become concerned about how their traditions and heritage are portrayed to tourists (Gonzalez, 2008).

Community support in Sawahlunto has not been recorded empirically, because this tourism destination has only begun to be developed in recent years. Previously, the majority of the people of Sawahlunto worked as mining workers and also in non-service industries. Industrial tourism has not yet been studied extensively, the few studies that exist generally focus on the characteristics of visitors and the relationship with the local economy (Pavlaković & Jereb, 2020). There is one previous study in Indonesia which examined the industrial tourist attraction of the coal mining town of Ombilin from the perspective of visitors, which stated that Ombilin's natural beauty, mining sites, museums, and architectural arts have the potential to attract tourists (Roni & Kanegae, 2020).

This study aims to get an overview of the attitude of the community in Sawahlunto towards the development of this destination as industrial heritage tourism. The results of this research will be valuable input for tourism stakeholders in Sawahlunto, especially policy makers and decision makers related to tourism development in the area in determining tourism development that accommodates people's aspirations in accordance with the principles of sustainable tourism.

Methodology

This study applies a mixed method – explanatory sequential design that combines quantitative analysis and then deepens it with qualitative analysis to explore real conditions in life and the contemporary context (Yin, 2009). Data collection was carried out through interviews, observation, questionnaires, focus group discussions, and literature review.

In-depth interviews were conducted face-to-face with several key informants from the Regional Tourism Office, local community leaders and management from the Indonesian Institute of Sciences (LIPI). Field observations need to be carried out to explore the potential attractiveness of the Sawahlunto industrial cultural heritage area, including underground coal mining pits that have been converted into educational and tourist sites, the Ombilin Coal Mining Museum, and the former PT Bukit Asam Tbk area which is now being used as the Kandi Zoo, lakes, racetrack, sports arena and several public facilities.

Questionnaires were distributed to 35 of local community directly, to obtain an overview of the community's attitude towards tourism development in Sawahlunto. The contents of the questionnaire consist of 20 statement items, using a Likert scale of 1-5. Data obtained from the results of the questionnaire survey were then processed using SPSS with a frequency descriptive analysis test to determine the distribution of respondents' answers, followed by categorization to determine the level of community support for tourism activities in Sawahlunto.

The final stage conducted a Focus Group Discussion (FGD) to capture aspirations in more depth for tourism development in the Sawahlunto Region. The FGD involved 8 related tourism stakeholders, from the local government (Tourism Office), representatives, the community, and LIPI (The Indonesian Institute of Science).

Results and Discussion

Results

The legacy of the Ombilin coal mine in Sawahlunto City, has high potential to be developed into a tourist destination. Not only historical and educational elements, but also many tourist attractions in the vicinity, both natural, cultural and artificial attractions. Some of the natural attractions around Ombilin are Polan Peak, Kelok 16, Blue Lake. Cultural and artificial attractions that are no less interesting for tourists are *Tenun* village, *Tenun* dances, *songket Silungkang*, *layak batoboh* dance, the cultural center building, the Goedang Ransoem Museum, and so on.



(Source: Authors Observation (2022))

Figure 2. Cultural Center Building in Sawahlunto (left), Sawahlunto Map (right)

As an initial research, a simple survey was conducted to the community of 35 respondents with the question "Are you aware of UNESCO's determination of the Ombilin Coal Mining Heritage of Sawahlunto as a world cultural heritage in 2019?". The result shows that only 3 out of a total of 35 respondents knew about the designation of Ombilin Coal Mining in Sawahlunto as World Cultural Heritage. The remaining 32 people did not know about this. This may be due to the lack of socialization carried out by the local government to the local, so that local residents do not know yet about the selection of the Ombilin coal site as a world cultural heritage site by UNESCO.

This simple survey is later followed by distributing questionnaires containing 20 statement items regarding tourism activities in Sawahlunto and their impact on the community. The result from the questionnaire are shown in Table 1.

Table 1. Questionnaire Result about Tourism Activities and Impact in Sawahlunto

Impacting Factor	Strongly...Slightly			Slightly...Strongly		
	Disagree (%)			Agree (%)		
Environmental	55	37	3	3	1	1
Economy	1	6	8	12	39	34
Social Cultural	0	0	1	2	36	61
Infrastructure Development	1	1	1	15	65	17
Support Toward Sustainable Tourism	0	0	0	0	10	90
Support Toward Destination Development	0	0	0	1	10	89

(Source: Authors calculation)

The survey results were then deepened by conducting FGDs to produce qualitative data which showed varied results. Against the first question; "Does the public know about UNESCO's

designation of Sawahlunto as a world heritage site?" some people don't know, because there was a shift in UNESCO's designation which was originally only for the mining site in Sawahlunto, but it was extended to the transportation route by train to Teluk Bayur port, but some people stated that they already knew about the UNESCO determination, but did not fully understand it.

The second question refers to the impact felt by the community from the establishment of UNESCO, most people have not felt the impact, especially those related to the economic impact. Another thing to note is the length of stay of tourists in Sawahlunto which is not optimal.

The results of the FGD on the third question regarding who initiated and fought for UNESCO regarding the designation of the Ombilin coal mine as a world cultural heritage is the establishment of the Ombilin Coal Mining Heritage of Sawahlunto as a world cultural heritage by UNESCO 2019, which is the result of the efforts of all stakeholders in Sawahlunto. These efforts yielded proud results for the people of Sawahlunto and more broadly for the Indonesian people.

From the results of data processing above, it can be seen that the UNESCO determination needs to be translated into a master plan for the development of sustainable tourist destinations such as socialization processes, community empowerment, good destination management, infrastructure arrangement, active participation of the public, private and government, as well as marketing strategies. Effective planning for the development of good tourist destinations is important because it can provide clear directions, avoid various negative risks and serve as a guide for the evaluation process (Soeswoyo & Dewantara, 2022).

Discussions

The big task is an effort to follow up on the results of the FGD, especially so that UNESCO's designation of the Ombilin Coal Mining Heritage of Sawahlunto as a world cultural heritage in 2019 will have an economic impact on the community. The spearhead of tourism in Sawahlunto is society, and community empowerment is the main focus of destination development. The community needs to increase its capacity, which turns out to have special competencies according to field conditions (Pavlaković & Jereb, 2020). Several communities such as the jeep car community, motorcycle taxi community and culinary traders/entrepreneurs community can be used as drivers of tourism activities in Sawahlunto. Another potential tourism activity is horse racing, the Kandi arena in the city of Sawahlunto has become one of the national horse racing agendas, this activity can help make the city of Sawahlunto known, which has a historical tourism industry of coal mines. Outreach to schools as has been done by the relevant agencies is a positive effort to introduce tourism potential and instill tourism awareness from an early age. Schools can be part of the promotion of destination development, considering that the biggest visitors to historical tourism are from the education community (school children).

Marketing strategy planning for this type of industrial tourism is also important, because this type of tourism carries a lot of history. According to Vargas-sánchez (2015), several cases state that industrial tourism exploits more without providing sufficient information about history and its processes, so that it is a good opportunity to be able to answer tourists' curiosity and make them interested in visiting. For this reason, it is necessary to think about how to arrange narratives and make it seem as if tourists are involved and part of the historical process that can be the right branding (Cassel & Mörner, 2011).

Ombilin coal mining industrial tourism can be a core component of Sawahlunto which can elevate the city's identity, and especially to provide benefits to local communities. For this reason, the role of the government is needed to make policies that can protect this cultural heritage and increase its attractiveness (Price, 2021).

Conclusions

As one of the tourist destinations in Indonesia, Sawahlunto has the potential to be further developed. The unique heritage of coal mines which are still well preserved. Sawahlunto has clean environment with cool air, several ancient buildings, as well as dance arts and various culinary specialties are an interesting mix for travelers.

The results of this study indicate that the community is very enthusiastic about supporting industrial heritage tourism development in Sawahlunto, so that it can benefit local communities,

especially economically. Potentials that can be further developed are culinary and guest houses as well as souvenir shops. Training to develop this potential is urgently needed and is the main agenda so that people feel the economic impact of tourism activities. There still needs to be an annual agenda that is more attractive to tourists. The community is the main point that needs to be empowered more optimally so that it becomes the main mouthpiece for promoting tourism activities in Sawahlunto. This research still has limitations because it was carried out when the Covid-19 pandemic was still ongoing, so the in-depth interviews and FGD processes could not be carried out optimally. Further research can be carried out, including strategic planning for the development of the Ombilin coal mine tourist destination, marketing strategy plans, capacity building of local communities through MSMEs.

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Local wisdom and tourism development in Kampung Nglanggeran, Gunung Kidul, Yogyakarta

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Abstract: This research aims to examine the positive impact of local wisdom on environmental sustainability and tourism development. In this study, a qualitative approach was conducted through observations and interviews. This research has conducted the analysis using a descriptive ethnographic approach to reveal the meaning behind the local wisdom. The results show that being part of the UNESCO Global Geopark has special meaning for Gunung Sewu in Java, Indonesia. Geoparks are concerned with conserving and developing geological diversity and aiming to develop and conserve the cultures within them. Pitu village preserves local wisdom, one of which is the seven-family restriction. Local wisdom in this village is closely related to limited natural conditions. Kampung Pitu is located at the top of Mount Nglanggeran, and no more than seven families can live here because they have taboos or rules from the past. All the local wisdom carried out by the people of Kampung Pitu was based on preserving nature and the entire community's safety. The preservation of heritage will provide uniqueness and attract tourists on its own.

Keywords: Local wisdom, conservation, tourism, cultures, environmental sustainability.

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Introduction

Local wisdom is the ability to adapt, regulate, and cultivate the influence of nature and other cultures that drive the transformation and creation of Indonesian cultural diversity (Pesurnay, 2018). This cultural diversity can also be found in Pitu Village, Nglanggeran, Gunung Kidul region, with the location that can be seen in Figure 1. Gunung Kidul Regency is one of the regencies in Yogyakarta. Klaten Regency, Sukoharjo Regency, Central Java in the north, Wonogiri Regency, Central Java in the east, the Indonesian Ocean in the south, and Bantul Regency, Sleman Regency in the west border Gunung Kidul Regency. The Nglanggeran Ancient Volcano area is registered in the Global Geoparks Network (GGN). The Gunung Sewu karst area (Conical Hills) has about 40,000 karst hills. The length of this area reaches 85 km, with an area of 1,300 km² of limestone deposits.

The development of the Nglanggeran Village area, Gunung Kidul, as part of the Gunung Sewu Geopark, uses a geo-conservation approach. The Geopark has been carried out well in the form of development planning and the participation of village leaders, village governments, and various levels of society in planning and organising. Pokdarwis has structured and integrated coordination. The purpose of Pokdarwis (Tourism Awareness Group) and Geosite Management is to develop the welfare of the surrounding community. Various national and international awards prove this goal.

Pitu Village has local wisdom that is still not widely known. The local wisdom appears to follow the natural conditions and cultural history that developed together in this region. The existence of Kampung Pitu has historical stories and myths. The people even believe it of Nglanggeran Village to this day. Until now, the people living in Kampung Pitu believe that a courtier of the Yogyakarta Palace originally discovered their village. In the past, the peak area of Mount Nglanggeran (now Kampung Pitu) was a quiet and uninhabited place.

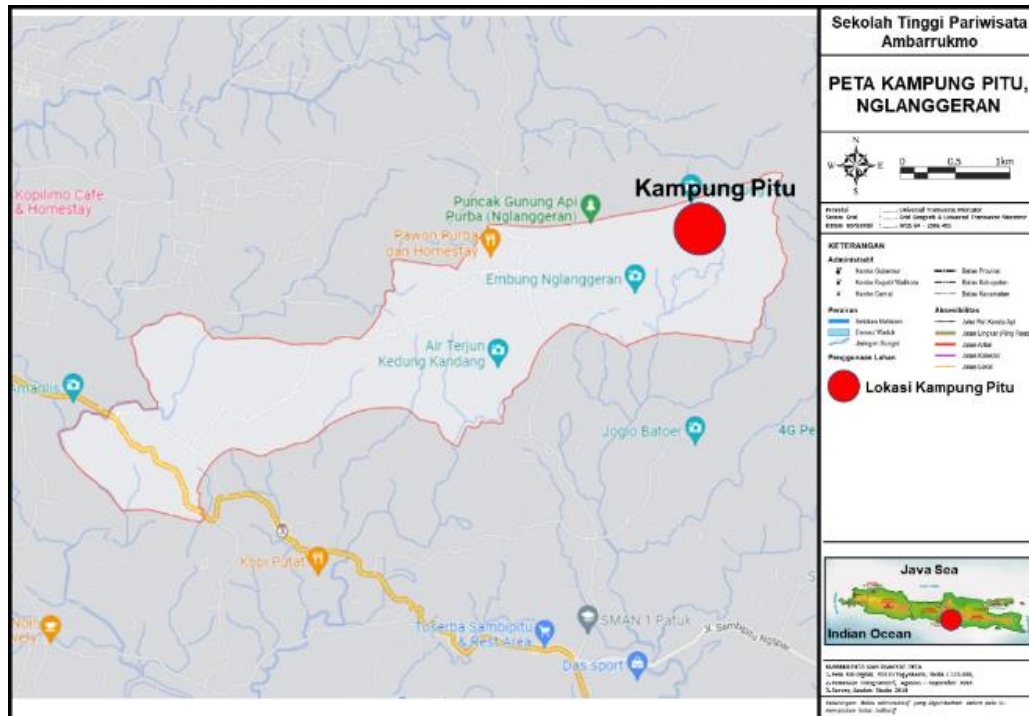


Figure 1. Location Map of Kampung Pitu

One day, a courtier of the Yogyakarta Palace went there and found a rare tree called the Kinah Gadung Wulung tree. Inside the tree, he found a *keris* that had high supernatural powers. The courtier said that whoever manages to keep the heirloom *keris* and clean the area around it will receive a reward for land for his descendants. It is said that only descendants who succeeded in carrying out the orders of the courtiers could survive in Pitu Village.



(Source: www.jogja.idntimes.com, 2023)

Figure 2. A sacred tree in Kampung Pitu

Pitu Village is located on the east side of the Nglanggeran Ancient Volcano, 740 meters above sea level, inhabited by seven families with a population of 30. Pitu village can only be inhabited by seven families, no less, no more. If someone violates this taboo, it is believed to cause bad events for them. It can be in the form of disaster, illness, or death. Another taboo that the residents of Kampung Pitu do not do is not hold puppet shows.



Figure 3. Pitu Village atmosphere (papanpelangime.wordpress.com) and Kampung Pitu family picture (www.terakota.id).

The life of the people of Kampung Pitu is an interesting topic. Discussions related to tourism and local wisdom in this village are expected to maintain and support tourism development without leaving local characteristics/wisdom. The problems revealed in this study are what local wisdom develops in this village and the relationship between local wisdom and tourism development in Pitu Village.

Local wisdom can be interpreted as wisdom (wisdom) and local (local), which is interpreted as local means local, while wisdom is the same as wisdom (KBBI, 2019). In general, local wisdom can be understood as wise ideas, full of wisdom and good value, which are embedded and followed by community members. Haryati Soebadio explained that local wisdom is the nation's cultural identity and cultural personality. Local wisdom causes a nation to be able to absorb and cultivate foreign cultures according to their character and abilities (Ayatrohaedi, 1986). Moendardjito stated that the elements of regional culture are the potential of local geniuses because they have been tested for their survival ability until now (Ayatrohaedi, 1986) Its characteristics are:

1. defend against foreign cultures
2. have the ability to accommodate elements of foreign culture
3. have the ability to integrate elements of foreign culture into native culture
4. have the ability to control
5. able to give direction to the development of culture.

Local wisdom refers to various cultural riches that grow and develop in a society known, trusted, and recognized as essential to strengthening community cohesion (Abdullah, 2010). In the dictionary sense, local wisdom consists of two words: wisdom and local. In general, local wisdom can be understood as ideas that are wise local wisdom, which is embedded and followed by community members (Hasanah et al., 2016).

The definition of local wisdom can freely be interpreted as good cultural values that exist in a society. In understanding local wisdom in an area, we must understand the good cultural values in that area. If people want to be honest, the values of local wisdom have been taught from generation to generation by our parents to us as children. The culture of cooperation, mutual respect, and *tepa selira* are small examples of local wisdom. Culture or local wisdom in each region makes Indonesia a country with a high level of pluralism. The diversity contained in the social life of the birth of a pluralistic society (Winarno & Herimanto, 2015; Pingge, 2017). Jamal

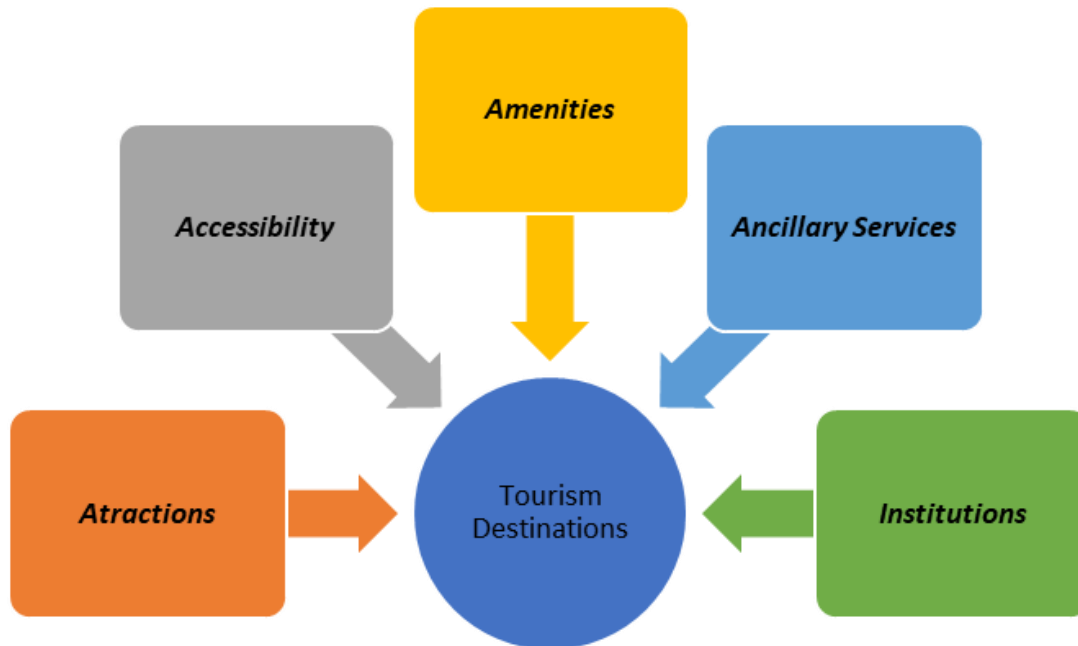
Asmani (2012) explains that local wisdom or excellence characterizes the region, including aspects of the economy, culture, information technology, communication, ecology, and others. This diversity must be preserved to maintain the cultural treasures of this country. Local wisdom characterizes an area in food, customs, dances, songs, and regional ceremonies.

This diversity must be preserved to maintain the cultural treasures of this country. Local wisdom characterizes an area in food, customs, dances, songs, and regional ceremonies. Local wisdom is accumulating knowledge and policies that grow and develop in society. Local wisdom includes theological, cosmological, and sociological perspectives. Local wisdom rests on philosophies, values, ethics, and behaviours traditionally institutionalised to manage natural and human resources. Local wisdom is formulated as people's views on an area's traditional natural and social phenomena. This view of life becomes the community's identity that distinguishes it from other groups (Musanna, 2012). While the understanding of local wisdom, according to experts (Affandy, 2019), includes the following: (1) Local wisdom is human intelligence possessed by certain ethnic groups, obtained through community experience. That is, local wisdom here results from specific communities through their experiences and is not necessarily experienced by other communities (Rahyono, 2009). (2) The meaning of local wisdom is various values created, developed, and maintained by the community, which become their life guidelines. However, society will try to obey it (Apriyanto, 2008). (3) Education based on local wisdom teaches students to always be concrete with what they face. Therefore, it is necessary to integrate knowledge with local wisdom (Freire, 1998). From the understanding of local wisdom according to the experts above, it can be concluded that the material of local wisdom and its discussion is a form of local wisdom. So local wisdom can be understood as wise ideas and knowledge, full of wisdom, good value, and virtue, which all community members own, guide, and implement.

Tourism destinations have various understandings and from various points of view (Hall, 2000). Davidson & Maitland (1997) explained that tourism destinations are a unity of tourism product factors (attractions, amenities, and access) and a comprehensive experience for tourists (Nadjmi et al., 2016). The destination is a geographical area, such as a country, island, or city. Lieper, 1995 explained that a tourist destination is a person's goal in travelling for a certain period to enjoy the trip and gain experience at a specific tourist attraction (Vitrianto, 2022).

A tourism destination is described as a specific geographic location with a distinct and unique character and political and institutional elements that aid market planning and growth (Vitrianto, 2022). Meanwhile, Dimitrios Buhalis explained that tourism destinations are a mixture of tourism products and offer an integrated experience for consumers (Buhalis, 2000). Tourism destinations are also a concept that consumers can interpret subjectively, related to travel, culture, the purpose of visit, education, and past experiences (Buhalis, 2000). Tourism Destinations can be defined as an integrated design of infrastructure facilities to meet the needs of tourists (Cooper et al., 1998). The concept of tourist attraction includes four principal components, namely: (a) Attraction is defined as the main factor that brings tourists. Tourist attractions consist of natural tourism, cultural tourism, and artificial tourism. (b) Amenity or facilities are defined as all types of facilities and infrastructure for the benefit of tourists in tourist attractions, such as accommodation/lodging, restaurants, transportation, and travel agencies, including facilities and infrastructure. (c) Accessibility is related to transportation in intermodal modes and systems divided into terminals, airports, ports, transportation routes or routes, and transportation facilities. (d) Ancillary Service (Additional Services or supporting facilities) is defined as services provided by the government or managers for tourism purposes in the form of marketing, physical development (management agencies, tourist information, tourism agents, tourism support facilities, water supply, electricity, waste disposal sites, telephone, and other.)

and also the coordination of all kinds of tourism activities. (e) Institutions are related to the existence and role of each element in supporting the implementation of tourism activities.



(Source: adaptation from Cooper (Cooper, Chris, John Fletcher, David Gilbert, Stephen Wanhill, 1998))

Figure 4. Tourism Destination Development Component

Physical or administrative restrictions on the destination will influence its management. The image and perception attached to the destination will affect market competitiveness development (Hanie & Pramana, 2018). A tourist area is an area that is provided and developed for tourism activities. Inskeep in 1991 revealed that recreational/relaxation facilities and services and enhancing experiences or health were also developed within tourist areas (Inskeep, 1991).

Methodology

This study examines the relationship between the existence of local wisdom in Pitu Village and tourism development to provide more benefits for the community's welfare. This research used a qualitative descriptive method to get a comprehensive picture of local wisdom (Sugiyono, 2007) developed in Pitu Village. This study also observes community involvement, contribution to community welfare, contribution of tourism to maintaining and improving environmental quality, and local community participation with visitors in this area. To get a comprehensive picture. Primary data was collected directly in the Pitu Village area through observations and interviews with seven families and elders of the Pitu Village community in June 2022. After the data was collected, the authors needed to clarify it to make it more valid to the Pitu Village residents. In the data processing process, the author involved the role of the Head of Nglanggeran Wetan Hamlet, the Pitu Village Community, and the Nglanggeran Community (Pokdarwis). At the same time, the secondary data study was obtained from the documentation of the Pokdarwis of the Nglanggeran tourist village with the addition of archival literature studies from several sources such as the Gunung Kidul encyclopaedia, the Gunung Nglanggeran website, and others. The data obtained additional information about local wisdom carried out for generations by the people of Kampung Pitu.

Results and Discussions

Results

Privileges of Local Wisdom from Pitu Village in Nglanggeran Tourism Village

Kampung Pitu is a village with the characteristics of a residential area on the top of the ancient Nglanggeran volcano, which maintains ancestral traditions with seven family heads in total. There is a myth passed down from generation-to-generation belief that seven families can only inhabit Kampung Pitu. If this taboo is violated, a sick family head will always fight in the household or for other reasons that cause him to want to move places or even die. The population of Kampung Pitu is 33 people, consisting of 15 men and 18 women. At that time, the name of Kampung Pitu was not known. This area is known as Kampung Tlogo. The people of Kampung Pitu believe that those who live in this area must be honest and have a clean heart. According to ancestral beliefs, the Pitu Village area is haunted and sacred. The belief of the Kampung Pitu community is inseparable from the beliefs passed down from generation to generation from the ancestors of the founders of Kampung Pitu. The belief of the people of Kampung Pitu cannot be separated from the hereditary beliefs of the ancestors of the founders of *Tlogo* Village. The beliefs of the residents of Pitu Village are in the form of traditions, rituals, and offerings carried out in sacred places. This activity organises celebration parties, such as weddings, circumcision, *ruwahan*, *Maulid Nabi*, and *selikuran* nights.

The residents of Pitu Village also carry out the *ngabekten* ritual or a feast when installing *wuwungan* or the top tile on the house's roof. When a baby is born, the baby's family or parents also hold a *selapanan* ritual involving all Pitu Village residents gathering to pray for the baby's safety. The activity is carried out by eating tumpeng rice, *ingkung*, and vegetables (*janganan*) (Rohim, 2017).

One of the cultural systems inherent in the villagers is the practice of three characteristics that the residents of Kampung Pitu must obey as a guide for behaviour. The practice of characters is a life guide in the form of Script 4, said Redjo, which means holy, honest, lasting, and sustainable. Script 5 means the order or rules that must be obeyed. While Aksara 7 emphasises the Tradition of finding the right time to do something. For example, looking for a good day is recommended when someone wants to build a house or get married. Another goal of practising the three characters is so that a person can be more honest in his words and not in a hurry to take action and follow the existing rules. The residents of *Kampung Pitu* hope they will benefit from the Nglanggeran Tourism Village because Kampung Pitu is one of the tourist destinations on offer. The residents of Kampung Pitu know that Nglanggeran *Kulon*, Nglanggeran *Wetan*, and Gunung Botak Hamlets enjoy the results of business related to tourism. Kampung Pitu's residents know how much income they get from businesses in the tourism sector, such as homestay services offered by the Nglanggeran Tourism Village. The residents of Kampung Pitu are part of the Nglanggeran village. However, they have not been able to enjoy the results of the tourism business because the location of Kampung Pitu is relatively far from the main tourist attraction. The journey to Pitu Village must pass through the *Terbah* and *Nglegi* villages. The road is steep and slippery during the rainy season. Kampung Pitu has been promoted as a cultural-traditional tourist village since 2015. The name Kampung Pitu was appointed to diversify the branding of Nglanggeran Tourism Village. The Kampung Pitu offers the uniqueness of a residential area on the top of an ancient volcano that seven families only inhabit for generations.

Local Wisdom of Pitu Village and Tourism Development

Pitu Village is one of the villages in Nglanggeran Wetan, Patuk District, Gunung Kidul Regency, Yogyakarta. Pitu Village is one of the exciting tourist destinations to visit while in Gunung Kidul. Kampung Pitu is known because only seven families live there, nothing more and nothing less. Folklore is believed from year to year that it is said that at the top of the *Kinan Gadung Wulung* tree, Mount Nglanggeran, there is an heirloom. Iro Kromo (village elder) managed to take the heirloom. As a gift, Iro Kromo was given a plot of land by the Yogyakarta Palace, agreeing that 7 Family Heads and their descendants could only inhabit the gift land. If there are more than seven family heads, they are believed to get into a disaster or fight. It can even result in the death of the eighth head of the family, so Pitu Village is re-inhabited by only seven families. Pitu Village was formerly known as Telaga Nglanggeran Village, where there is a lake that never dries up.

The daily livelihood of the people of Kampung Pitu is farming in the fields and also owning rice fields. The community also develops livestock businesses such as chickens, goats, and cows. The uniqueness of the Pitu Village community is in the form of customs from their ancestors as cultural characters, traditions, and community identity as local cultural heritage. The people of Kampung Pitu still carry out several traditional ceremonies and arts to maintain their belief traditions. The customs and traditions that exist in Pitu Village are an attraction for tourists. Some of the cultures and traditions that can still be seen in Pitu Village.

Tinggalan

The legacy is a tradition of celebrating the birthday or anniversary (*weton*/Javanese calendar) of the elders of Kampung Pitu Village. The village elders of Pitu only carry out the *Tinggalan* tradition. The purpose of the *Tinggalan* tradition is a form of gratitude for the age that has been given and sharing sustenance with neighbors by providing food/*kenduren*. Offerings (*Bon Abon*) are used in the *Tinggalan* tradition. It has three flowers, betel leaf, tobacco paper, and a 500-rupiah coin.



Figure 5. Tinggalan Tradition (Candra, 2022)

This Tradition is held every 35 days or according to the Javanese calendar. This Tradition is carried out every 35 days or according to the Javanese calendar (*weton*). According to Javanese belief, the *weton* on the date of birth dramatically influences the future course of life. The Leaving Ceremony aims to make a wish for future success and safety.



Figure 6. Tumpeng-Sajen of Tinggalan Tradition (Setiawan, 2021)

Considering the location factor in the Pitu Village area, the *Tinggalan* tradition procession is carried out only by seven heads of families. In addition, this Tradition also aims to honor village elders who are respected and glorified by the residents. The family makes *Tinggalan* Tradition dishes through a relatively complex and complicated process. Culinary treats for guests who attend and are allowed to take home as a feast. The treats are tumpeng rice, *ingkung* chicken, Gudangan/trancam vegetables, *blowok* porridge, *sego golong*, and *lombok* vegetables. The menu served in the Residence ceremony is prepared and served by the family holding the ceremony. This series of ceremonies are carried out to maintain family harmony, and the dish preparation process is carried out together. The relic ceremony process is implemented according to traditional rules from generation to generation, with a complete dish obtained from the harvest and livestock of the Pitu Village family. *Kenduren*, in *Tinggalan* tradition, is given to 7 heads of families who are present to take home so that the family can eat it at home. The goal is that all can taste succulent cuisine and feel the happiness of those who make it.

According to public belief, the *Tinggalan* procession should not be carried out carelessly. It must be coherent, following the standard/*kejawen* rules. This ceremony is to preserve Javanese culture, especially in the culinary specialties of Gunung Kidul (Kampung Pitu). In addition, the activities of the relationship by sharing. Prayer leaders or traditional elders pray that they will always be given health, protected from harm, live long, and always get protection. Prayer is not only for people with a birthday (according to the Javanese weton). Prayers are also sung for the common good, such as the hope that abundant water will be given, a plentiful harvest, good livestock, and endless fortune.

Tinggalan is carried out to preserve culture because the procession has become a *kejawen* standard carried out by ancestors and passed down from generation to generation. *Tinggalan* is a form of gratitude for the indigenous people of Pitu Village. Offerings are considered sacred and can make everything that is prayed to God will be granted. The offerings of the *Tinggalan* tradition are unique and cannot be done by everyone. Therefore, preserving the physical form of such offerings is still maintained. Not as a polytheist belief/associating partners with God, but only as an effort to preserve culture. Prayers in the *Tinggalan* tradition use the Javanese language with the teachings of the *Kejawen* Islamic religion. Currently, traditions with *kejawen* elements are considered sacred and have deep meaning. Prayer in the *Tinggalan* Tradition is considered unique and has different characteristics from other regions. Creating a peaceful atmosphere in Kampung Pitu and as a symbolic meaning of love for the family of Kampung Pitu

Tayub/Ledek

The *Tayub/Ledek* dance performance is served during the Apostles Tradition. The show is held once a year with a typical Javanese dance accompanied by Javanese music, namely the songs *Blendrong*, *Ijo-ijo*, *Eleng-eleng*, and *Sri Slamet*. These four Javanese songs express gratitude for the abundant harvest. So in the Rasulan event, this Tayup dance art is performed. This dance is held near the Lake or Lake Kampung Pitu. This dance is a symbol of gratitude for the abundant harvest. By carrying out this dance ceremony, it is hoped that the following harvest seasons will still be given fertility and prosperity from the harvest. This dance symbolizes fertility and is a form of gratitude for the residents for the abundant harvest.



Figure 7. Ledek/Tayub traditional dance

The *Tayub/Ledek* dance is a form of cultural adaptation to the beliefs found in Pitu Village. The purpose of not holding a puppet show is to guard and anticipate so that something does not happen. In ancient times there was a wayang performance. However, after the performance, there was an incident where someone was beheaded. From then on, wayang performances should not be held in Pitu Village.

The origin of Mount Nglanggeran is the basis for the prohibition of shadow puppet performances. The guard of Mount Nglanggeran, Kyai Ongko Wijoyo, is believed by the residents not to agree because he does not want any harm to occur after the performance. This taboo is often associated with supernatural things. However, if digested with logic, this prohibition is made to maintain the balance of nature. Puppet shows are usually held overnight. It is feared that there will be wayang spectators or irresponsible people who misbehave and damage the environment. This dance can be used as a traditional performance or a tourist attraction. Tourists can enjoy the motion and dance of dancers and learn the noble values contained in them.

Rasulan

Rasulan is a tradition carried out after harvest with a rough execution time. *Rasulan* is held after receiving a recommendation from the traditional local leader. *Rasulan* is an event expressing gratitude for the abundant harvest and an effort to resist disaster and maintain safety. Besides that, the community prays that the next harvest will be better. The purpose of holding *Rasulan* is as a form of gratitude for the abundant harvest and hope that in the future, the residents will not experience crop failure in the following year. The Apostles' Tradition is carried out in a few

days. The climax is the cultural carnival, where there is a mountain containing the harvest from each village, after which the carnival surrounds the village. A disaster is believed to occur if this Tradition is not carried out. The apostolic Tradition is held so that the village always looks clean; it affects the surrounding environment. The surrounding conditions, such as comfort and health, will be maintained if the environment is clean. The apostleship tradition becomes a local tradition in Gunung Kidul Regency every year. The main event is in the form of offerings (*sajen*) and prayer led by traditional elders. After that, we continued with other traditional performances. This show is allowed to be watched by the general public.



Figure 8. Rasulan tradition

Ngabekten

There are many meanings for this *Ngabekten* tradition in Javanese culture. *Ngabekten* means filial piety. The devotion in question is devotion to Allah SWT as the creator of the universe. Great hope to the Lord of Nature is always given safety, convenience, and protection in a new home. In Yogyakarta, there is a *Ngabekten* tradition, which means kissing the feet of the sultan. However, the *Ngabekten* Tradition in Gunung Kidul is a feast process after someone finishes raising the top wood when building a house. This *Ngabekten* traditional ceremony begins with praying and watering the *Suwunan* wood (the wood at the top of the house frame) using *Setaman* flowers. The *ngabekten* Tradition requires that the home be created to provide a safe refuge for its people and protect the house and its occupants.



Figure 9. Ngabekten tradition

This Tradition is only carried out by the concerned Kampung Pitu Family, which is used as a community thanksgiving tradition after being able to build a house. The Pitu Village area is indeed considered sacred and full of supernatural things. Prayers complement this Tradition to ask for protection from bad things and the blessing of the house by the Almighty.

Mong–Mong (Momong)

This Tradition is carried out to express gratitude and salvation. There are two traditions, namely *Mong–Mong Pedet* and *Mong–Mong Montor* (motorbike). Mong–mong calf is held when livestock such as buffalo, cows, and goats are born. Not only the birth of livestock but this Tradition is also carried out in the context of buying new motorbikes so that new motorbikes are safer and full of blessings.

The purpose of saving for animals is so that newborn animals can provide many benefits for their owners. Besides, those farm animals are always given health and develop well. Mong–Mong Pedet salvation teaches residents to always be able to share with other humans, especially families. Moreover, please invite others to be happy with what we get as sustenance for livestock birth. Mong-mong *Pedet's* salvation is intended for families with traditions and those around them. The great hope is that the family will always be given abundant sustenance and avoided all bad things. Moreover, the birth of livestock will bring blessings.



Figure 10. Mong-mong tradition

The purpose of the motorbike is that the vehicle used by the owner provides excellent and many benefits. Besides, the driver is given safety when riding this vehicle. New vehicles must be saved to avoid harming the owner and others. Mong-mong is a form of gratitude for the abundant sustenance to buy a new vehicle from Allah SWT. This salvation is a form of happiness for the motorcycle owner, and it is only natural for us to share happiness with others.

Wiwitan

The Wiwitan Tradition is related to the beginning of rice farming activities in Pitu Village. Wiwitan comes from the word "*wiwit*," which means "start." This Tradition uses several foods and offerings in the form of flowers, incense, rice, warehouse vegetables, *ketupat*, corn sauce, *palawija*, and *ingkung* rooster (Sugito, Interview, 2018).



Figure 11. *Wiwitan* tradition

The Wiwitan Tradition is an expression of gratitude to God after the harvest period and asking permission from the natural rulers around the rice fields to plant rice as a source of livelihood for the residents of Pitu Village. The *wiwitan* Tradition aims to ask the Lord of Nature to ensure that rice plants are fertile and avoid pest attacks (Interview with Mbah Yatno, 2018). There are several sequences in the Wiwitan Tradition (Interview with Sugito, 2018), namely:

- a. Making *Inkung*; *Inkung* is male Javanese chicken cooked with whole spices without being cut.
- b. Making/Preparing Food and Offerings Some of the foods and offerings needed in the Wiwitan Tradition are Palawija (cassava, cassava, taro, peanuts), Ketupatm (rice wrapped in coconut leaves or young coconut leaves), corn sauce, *jadah* (glutinous rice with grated coconut), rice, *gudangann* (boiled vegetables with chilli sauce from grated coconut).
- c. *Abon-abon*: betel leaf, gambier, tobacco, and *injet*/lime. Javanese people in the past used this *abon-abon* for *nginang*.
- d. Frankincense and flowers. The incense used sticks, and the flowers were telon (3) (roses, jasmine, and *kanti*). There are special conditions when buying flowers, which are not negotiable and cannot be bought twice or more.
- e. Cigarette. Cigarettes are also used as offerings and do not look at the brand.

A traditional elder leads the Wiwitan ritual. They start with burning incense, followed by praying. This ritual is carried out in the fields where rice will be planted. After the prayer, *ingkung* and food are eaten in the rice fields.

Discussions

The Relationship between Local Wisdom and Tourism

Table 1 shows the relationship between Local Wisdom and Tourism as follows:

Table 1. Relationship between Local Wisdom and Tourism	
Local Wisdom	Links to Tourism
Seven families in one village.	Maintaining the uniqueness and sacredness of Pitu Village by maintaining seven families so that the ecosystem can be well maintained and comfortable for tourists to visit
The residents of Kampung Pitu must obey Aksara's practice as a guide in behaviour.	It gives the impression of being friendly and safe and maintaining cultural purity so that it can become a significant cultural attraction that attracts tourists.
Tayub/Ledek dance performances and the prohibition of shadow puppet performances.	The uniqueness and specificity of cultural traditions are fascinating to be studied more deeply in the form of cultural tourism.
<i>Rasulan</i> Tradition (Clean Village) Offerings and prayers with the residents of Kampung Pitu	Creating a clean and beautiful atmosphere in Pitu Village, making it comfortable for tourists
<i>Ngabekten</i> is a traditional ceremony when building a house.	Introducing typical traditional culinary traditions with a series of <i>kenduri</i> events in <i>ngabekten</i> is a unique feature for tourists.
Mong-Mong, Congratulations on the birth of livestock or having a new vehicle.	Teach tourists how to be grateful for the blessings given by God in various ways to others.
Tinggalan Tradition, or birthday celebrations based on the weton / Javanese calendar	Provide an overview of institutions in the cultural setting of the village. Provide a unique experience for tourists and as a medium of education and cultural preservation efforts.
Wiwitan, starting rice planting	Describes gratitude in utilizing nature (agriculture)

Local wisdom, which is very strong and rooted in the people of Kampung Pitu, is the primary capital of this village's uniqueness. Local wisdom is one of the things that must be considered in environmental protection and management activities (Maridi, 2015). Local wisdom has developed and becomes the community's traditions and culture. Local wisdom is formed because of the relationship between traditional communities and the surrounding ecosystems, which have traditional beliefs, laws and institutions, knowledge, and how to manage natural resources locally (Framujiastri et al., 2020). Local wisdom in developing Kampung Pitu also supports the development of tourism, which is starting to appear. The main components of tourism, such as accommodation, attractions, accessibility, and services, are formed along with the wisdom possessed by the villagers. The practice of characters that villagers always carry out makes residents more friendly to anyone, including tourists. Residents become open and friendly to tourists, although some rules must be obeyed, such as maintaining politeness.

The rule of Kampung Pitu, which seven families can only inhabit, also gives a special impression to tourists. Local wisdom in the form of family restrictions makes Kampung Pitu more exclusive and organized. Kampung Pitu becomes more beautiful because residential development

is limited and does not interfere with green areas. This restriction is very important to keep the environment's carrying capacity in Kampung Pitu well-maintained following the available land. These restrictions also positively impact environmental sustainability and conservation in this area. Traditions such as *rasulan*, *wiwitan*, and other types still exist. Traditional ceremonies rooted in local wisdom are an attraction in themselves and attract tourists.

The implementation of traditions also strengthens and enhances the cultural identity of the local community. Identity refers to the special character of individuals or members of a particular group or social category (Santoso, 2017). The local government provides support and assistance so that the uniqueness of Pitu Village is further developed and preserves customs rooted in local activities in tourism development. The local wisdom formed and maintained in Pitu Village is a value that supports tourism development in Pitu Village. Community-based tourism has been developed in the Nglanggeran tourism area. Developing community-based tourism villages is still focused on the Nglanggeran tourism village (Hermawati, 2020). However, in Pitu Village, the concept has not been well developed.

Community-Based Tourism (CBT) is a tourism development model that assumes that tourism development must depart from the awareness of community needs and values to build tourism more beneficial to local communities needs and opportunities (Hermawati, 2020). The preservation of the authenticity and purity of Kampung Pitu indirectly helps develop the concept of community-based tourism and sustainability. This condition provides benefits and promising developments for villagers to develop and prosper.

Conclusions

Pitu Village is one of the villages in the Gunungsewu geopark area, Gunung Kidul, which still maintains local wisdom in traditional customs and culture. The local wisdom guides people's lives, starting from the village structure, gratitude for life, environmental management, and human relations. Local wisdom in customs, traditions, and culture maintained until now is also unique. It can attract tourists to come to visit. With good tourism management, Kampung Pitu will develop and be known by the wider community and tourists. Thus, local wisdom in the form of customs and culture can be more maintained and sustainable from generation to generation and provide welfare for the community. All the uniqueness of local wisdom in the form of customs and traditions that belong to Kampung Pitu should be introduced and preserved so that it is maintained. The local government can further develop the uniqueness of local wisdom in Pitu Village. With its noble values, local wisdom can be further promoted as a characteristic of Gunung Kidul Regency and used as a tourist attraction of particular interest in cultural education. Future research is expected to more deeply see the uniqueness of each form of local wisdom, customs, traditions, and culture and their relationship to the community's welfare. In addition, the linkage of local wisdom with the development of the Gunungsewu geoparks program can also be studied further.

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Implementation of sustainable event on wedding activities at The Apurva Kempinski Bali

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Abstract: This study aims to analyze the implementation of sustainable event management in weddings and its contribution to the environment, society, and the economy at The Apurva Kempinski Bali, Indonesia. The data collection method used in this study was by distributing questionnaires to 10 respondents and observing wedding event management. The data analysis method used is a descriptive statistical analysis by calculating the average and percentage of the questionnaire results. The results of the observations are described as reinforcement and explanation of the percentage results obtained from the questionnaire. The results of this study indicate that The Apurva Kempinski Bali has implemented sustainable wedding event management. The results of the questionnaire values obtained show a range of values from 2.60 to 3.40 which indicates poor implementation, then a range of 3.41-4.20 which states that it is implemented well, and a value range of 4.21 to 5.00 which states that it is implemented very well. Sustainable wedding events are currently being implemented in the hotel by establishing a sustainable wedding package program and several rules for implementing sustainability including permits and agreements. This implementation has had a positive impact on several indicators of sustainable activities at The Apurva Kempinski Bali.

Keywords: : implementation, sustainable wedding, wedding event management, hotel.

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Introduction

Weddings are one of the life cycles carried out by society which cannot be separated from culture. It is a large-scale event which involves several items namely, wedding decoration, flower arrangement and entertainment. This includes some of the hotel wedding venues which involve F&B, banquet, housekeeping, engineering, security, concierge and wedding sales, while some external hotel wedding venues consist of the wedding organizer, vendors and entertainment crew. Based on this phenomenon, wedding events will have the effect of waste pollution and environmental damage caused by multiple installations of heavy objects and footprints by many people involving the wedding venue such as internal, external and guest staff.

In this modern industrialization of tourism, the concept of sustainability must become a trend to minimize environmental damage. Sustainability does not only mean meeting our own needs, but also about compromising the ability of future generations to meet their own needs. Sustainability consists of three basic lines, namely people, profit, and planet which are also represented as social, economic, and environmental (Bianchini & Rossi, 2020; Bikinhong & Lai, 2019; Tölkes & Butzmann, 2018).

Environmentally friendly is the key to creating a sustainable event by providing various indicators to measure the environmental impact of an event (Astawa et al., 2019; Astawa et al., 2018). The indicator checklist of the concept of sustainable event management consists of venues, accommodation, catering, event communications & materials, local transportation, exhibitions and stakeholder engagement & communication (Trisna & Arcana, 2014). Implementation of sustainable event management must ensure the technical operational needs of the event, such as collaboration with related parties to meet event needs, provide facilities, food and drink, health and safety for parties involved in the event, the number of staff involved

is good and required staff qualifications, event holding permits, event legality, event contract making and event organizing risks (Noor, 2013; Nugraha & Noor, 2015; Yuniati et al., 2022).

Sustainable implementation in 5 star hotels is becoming increasingly important in the hospitality industry for several important reasons. Here are some research-backed insights into why five-star hotels should prioritize sustainability in event management. Several studies have shown that the hotel industry is a major contributor to greenhouse gas emissions, water use, and waste generation. Adopting sustainable practices can help reduce these environmental impacts, conserve natural resources and protect local ecosystems. Jones (2017) provides guidance for event organizers and hotels to implement sustainable practices and the importance of sustainability in hospitality and its benefits for five-star hotels.

Adopting sustainable practices ensures that 5-star hotels comply with growing environmental regulations and certifications such as LEED (Leadership in Energy and Environmental Design) and Green Key. These standards demonstrate a hotel's commitment to sustainability and can appeal to environmentally conscious guests and event organizers.

In short, a 5-star hotel should adopt sustainable practices in event management, taking into account environmental benefits, corporate social responsibility, cost savings, guest expectations and regulatory compliance. By prioritizing sustainability, hotels can improve their reputation, attract a wider customer base, and contribute to a greener hospitality industry.

The Apurva Kempinski Bali which is a popular 5-star hotel in Nusa Dua, Bali pays attention to the sustainability of its management by making regulations that are made to maintain security and protect the venue environment from pre-event to post-event (Trisnayoni et al., 2022). From a socio-cultural perspective, The Apurva Kempinski Bali has created a selection of Indonesian wedding menus and provided Indonesian cultural ornaments and the landscape of the Majapahit Kingdom as a view for the wedding reception. This sustainable implementation is a step to protect the environment and socio-culture as a driving force for economic development.

Methodology

This research was conducted at The Apurva Kempinski Bali sales & marketing department for 4 months using qualitative and quantitative data types with primary and secondary data sources. The data collection method uses questionnaires, observation, and documentation (Sugiyono, 2016). The technique used to analyze the data in this study is descriptive statistics to explain the data in general or generalization, by calculating the minimum value, maximum value, mean value, and standard deviation (Nuryadi et al., 2017).

This study uses key informants who represent the population/sample in quantitative research, and must be determined early in the research phase in the form of determining the number of informants. Informants are research subjects who provide information about phenomena or problems raised as research themes/topics (Heryana & Superior, 2018). The number of respondents used was 10 respondents consisting of group and event directors, sales managers, sales executives, sales coordinators and wedding organizers. This research uses snowball sampling to determine the respondents.

The results of the questionnaire will be averaged then the results will be put into categories according to the average value obtained. The range of interval values is used to determine the appropriate category for the values obtained from the questionnaire answers. The interval range will be calculated by the formula below:

$$\text{Interval Level Value} = \frac{\text{Highest score} - \text{Lowest score}}{\text{Number of criteria}}$$

The variables to be measured are translated into variable indicators using a Likert scale. The Likert scale is a tool for assessing the attitudes, opinions and perceptions of a person or group of social phenomena that occur in a certain place which have levels from very negative to very positive (Sugiyono, 2017). In this study there are 5 categories, namely very bad implementation, bad implementation, less implementation, well implementation, very well implementation.

- | | | |
|----|-----------|------------------------|
| 1. | 1,00-1,80 | = very bad implemented |
| 2. | 1,81-2,60 | = bad implemented |
| 3. | 2,61-3,40 | = less implemented |

4. 3,41-4,20 = well implemented
 5. 4,21-5,00 = very well implemented

The interval range in this study was 0.8. This range is obtained from the calculation results as above. The interval range is obtained from subtracting the highest and lowest scores on the Likert scale for the questionnaire.

Results and Discussions

Results

The application of sustainable event management in wedding activities at The Apurva Kempinski Bali uses quantitative analysis, by displaying research data through a questionnaire to explain how sustainable event management is implemented in wedding activities at The Apurva Kempinski Bali. The indicator checklist is used from the concept of sustainable event activities consisting of venues, accommodation, catering, event communications & materials, local transportation, exhibitions and stakeholder engagement & communication (Arcana, n.d. 2014).

Venue

The respondents' answers to the implementation of sustainable event venues include saving space used, tooling structures having removable plastic and signage communications each having a score of 3.9 indicating good implementation. Apurva Kempinski has two types of venues, namely outdoor and indoor. As for outdoor venues, it is recommended to minimize damage due to scratched floors due to heavy installation. The utensil structure has a plastic cover (or other material) that can be removed, its use is widespread in outdoor events, but generally not considered environmentally friendly, because plastic with tablecloths and reusable cutlery consisting of ceramic plates, glasses and cutleries set that can be reused for the next event after as seen in Figure 1.



(Source: Author documentation, 2022)

Figure 1. Reusable Tableware

The risk of outdoor events is higher because it is difficult to control the condition of visitors during the event (Lidya, 2013). The management of Apurva Kempinski Bali issues a loading permit to regulate what is prohibited during the installation and dismantling of heavy equipment. Both parties, Hotel Management and vendors, are required to sign a letter of loading, agreeing to any damages caused to the event. There are several statements from the letter of loading that are highlighted because they contain rules to contribute to the sustainability practices of wedding venues such as all areas must be covered with plywood/plastic/rubber mats before construction takes place, covered with cables and exits, sparks, smoke detectors must not be blocked by draping or whatever (Ernawati et al., 2022).

Accommodation

Several sub-indicators of sustainable event accommodation are environmentally friendly room products, noise control, and technological equipment to save and reduce energy consumption. The implementation of a sustainable accommodation event which consisted of using environmentally friendly room products had a score of 4.1 which was stated to be well implemented through a program called Soap for Hope. This program was created in an effort to promote not only community hygiene, but also waste management because this process does not use electricity or running water, so there is no more unnecessary waste generated here.



(Source: Author documentation, 2022)

Figure 2. Eco Friendly Soap

There is noise control with 4.2 which is stated to be implemented well because all amplifier speakers must be closed no later than 10 pm with the use of sound on television and other media which is more than 75 dB can consume large amounts of electricity, namely 120 watts (Wantoro, 2017). While the use of technology and equipment to save and reduce energy consumption has a score of 3.1 which states that the implementation is lacking because the saving mode still uses a manual system while the use of lighting can be reduced because the hotel's location is on the coastline where the hotel is located. exposure to sufficient sunlight and strong winds, it would be better if Apurva made its own source of electricity to be used in operations such as solar panels.

Catering

The implementation of the catering and service concept of sustainable events is measured through several sub-indicators consisting of offering and providing menus with local ingredients with a score of 3.9 with implementation that is declared good, the use of local distributors in supplying needs has been implemented properly with a score of 3.9 through collaboration held with several local brand companies to provide food and beverage ingredients such as Plaga Farm to provide being a resort partner that demonstrates accountability to the community and its environment. Tanamera Coffee participates as a brand that is committed to respecting the ecosystem and community by working with local farmers across the country in providing education and consistently improving coffee processing. Balian's water comes from free-flowing springs that don't pump aquifers like most or damage the ecosystem. This collaboration with local suppliers is part of the sustainable wedding program launching in 2022 and updated to the website as Figure 3.

SUSTAINABLE WEDDING: THE APURVA KEMPINSKI BALI AND LOCAL PARTNERS COME TOGETHER TO INSPIRE COMMUNITY

Nusa Dua, ~ 03 May 2022 - The Apurva Kempinski Bali and partners have come together to inspire and seek ways of addressing the important topic of sustainability with another breakthrough at the resort, this time in the form of a **Sustainable Wedding Package**. To promote the activation of this movement, similar-minded key partners are invited. They are Designmill Co., SukkhaCitta, Puri Ata, Taga Woodcraft, Plaga Farm, Tanamera Coffee and Balian Water.

Designmill Co. joined the project to lend their expertise with the decoration. Recycled paper papeteries, wooden chairs and potted plants are utilised to decorate the venue, with hanging natural fabric and printed customised motifs. The event decorator has brought fashion label **Kaeen**, who are known for sharing Indonesian creativity through their fabric. Another partner from the fashion industry is **SukkhaCitta**, an award-winning social enterprise that focuses on changing lives in rural Indonesia, who will be creating the wedding dress. This sustainable fashion has been recognised with a B-corp certification, which is exclusively bestowed on companies with social and environmental impact. **Puri Ata** and **Taga Woodcraft** provide their locally handmade crafts, as a sustainable wedding gift. For food and beverages, **Plaga Farm** has become the resort's partner that demonstrates accountability for its people and environment. Similarly, other ingredients are sourced from local producers. Meanwhile, **Tanamera Coffee** and **Balian Water** are invited to participate, as brands that are committed to respecting the ecosystem and communities with which they work with their products.

(Source: <https://www.kempinski.com/en/the-apurva-kempinski-bali>)

Figure 3. Sustainable Wedding Website

Sustainable catering also includes avoiding single serving containers for food and condiments (e.g. milk, cream, sugar, butter, ketchup, breakfast cereals, etc.) has been implemented well with a score of 3.5, in addition to offering vegetarian menu options implemented with a score of 3.6.

Communications and Materials

The results of the questionnaire for sustainable event management material Utilization of flowers/plants consisting of endemic seasonal species was 3.6 which stated good application, 4.5 stated brochures & paper documents which stated very good application and provided environmentally friendly detergent products. is 3.4 which states that the implementation is lacking. The Apurva Kempinski Bali has implemented wedding decorations using potted orchid plants. Orchid is an ornamental plant which is indicated as an endemic seasonal flower because the diversity of types and varieties of orchids throughout the world is very high in distribution in the tropics and subtropics. However, most are found in tropical forest areas. Orchids are one of the flower groups that have the most abundant species diversity and have different habitat characteristics (Ardina et al., 2022) (Dewi, 2021). This is the sustainable concept of using potted orchid plants as shown below in Figure 4.



(Source: Author documentation, 2022)

Figure 4. Sustainable Flower Decoration

In preparing wedding documents, from the beginning to after the wedding, electronic documents are used such as agreements and bills of lading. In addition, the application of environmentally friendly detergent products by providing cleaning and sanitation products that contain less alcohol, because alcohol in cleaning agents, as well as wet wipes and disinfectants can accelerate the process of wear and tear, varnish as a protective coating for interior materials including cloth, plastic, vinyl, leather, or wood.

Local Transportation

Local transportation is a transportation system that only serves local trips, meaning that the origin and destination are closed (Sari, 2019). In local transportation, it consists of reducing greenhouse gas emissions towards sustainable transportation options with a result score of 4.1 which indicates good implementation. Transportation that can reduce greenhouse gas emissions in the hotel area is an electric vehicle called a buggy as internal hotel transportation to drop off and deliver wedding guests, bridal couples and others to reach the wedding venue or other places related to weddings as shown below Figure 5.



(Source: Author documentation, 2022)

Figure 5. Dedicated Wedding Buggy

Exhibition

The result of the questionnaire from the exhibition indicator statement is an understanding of the impact of industry and supply chain on the environment with a score of 4 which indicates good implementation because The Apurva Kempinski Bali has collaborated in a sustainable marriage program with several local suppliers. Its partners have come together to inspire and find ways to tackle the important topic of sustainability with another breakthrough at the resort, this time in the form of the Sustainable Wedding Packages in Figure 6.



(Source: Author documentation, 2022)

Figure 6. Sustainable Wedding Package Exhibition

Discussions

Stakeholder Engagement

Stakeholder engagement is an important part of corporate social responsibility (CSR) by holding activities to help improve the quality of life of the community which has been implemented properly by The Apurva Kempinski Bali as the result of a questionnaire which has a score of 4.2. CSR programs that have been implemented include donations from the Soleman foundation which helps people with disabilities, mental health disorders and acute or chronic illnesses and their families throughout Bali, donations of recycled newspapers and scraps of paper to Saraswati Papers, each folio produced by Saraswati Paper is made of paper hand made using 100% post consumer recycled paper. The hotel has established a relationship with CSR Sawangan to empower the Sawangan community to clean up the Sawangan beach around several luxury hotels including The Apurva Kempinski Bali.



(Source: csr sawangan Instagram, 2022)

Figure 7. CSR of The Apurva Kempinski Bali

Conclusion

The Apurva Kempinski Bali has now started implementing sustainable event management in wedding activities. The implementation of sustainable event management at Apurva Kempinski Bali is in the well implemented category, namely the average of all indicators is 3.9. The value range for all indicators of implementing sustainable event management is 3.41 – 4.20.

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The effect of service, facility, and security toward tourists' interest to Adityawarman Museum

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Abstract: This study aims to determine the effect of service on tourists' interest in visiting the Adityawarman Museum in West Sumatra, Indonesia. The method used in this research is a quantitative research method. The data collection technique was carried out by filling out a questionnaire. The number of respondents was 100 visitors to the Adityawarman Museum. The data analysis technique used is a validation test, reliability test, classic assumption test, multiple linear regression analysis, determinant coefficient test, and t-test, with all data were processed by using SPSS 22. The results showed that service, facilities and security variables influenced tourists' interest to visit the Museum, while service, facilities, and security variables together influenced tourists' interest to visit. For this reason, this research provides an overview of the Adityawarman Museum manager in maintaining and improving the services, facilities, and tourist safety. Then by providing better services, facilities, and security, it will attract tourists to re-visit the museum so which affects tourist satisfaction. In conclusion, the better the service, facilities, and security at the Adityawarman Museum, the more interest of tourists to visit the Adityawarman Museum will increase.

Keywords: Services, Facilities, Security and Tourist Visiting Interests.

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Introduction

Indonesia is a country that has great potential in tourism where West Sumatra Province is one of the examples of tourist destinations in Indonesia. This province has various natural and cultural resources and has its own uniqueness, one of which is the city of Padang which offers a variety of historical and cultural attractions (Mandalia, et al, 2022). Padang City is the largest city on the west coast of Sumatra and the capital city of West Sumatra Province, Indonesia. This city is the western gateway to Indonesia's Indian Ocean. Geographically, Padang is surrounded by hills which are 1.853 metres above sea level, with an area of 693.66 km², or 1.65% of which, more than half are protected forests. According to data from the Central Statistics Agency (BPS) in 2021, the city has a population of 909,040 people. Padang's history is closely related to its role as a Minangkabau region, consisting of fishing villages in the estuary of Batang Arau and developing into a busy port city after the arrival of the Dutch under the Vereenigde Oostindische Compagnie (VOC) flag. The city's anniversary was set on August 7, 1669, the day the Pauh and Koto people attacked the Dutch hut in Muara Padang. During the Dutch colonial period, the city was a centre for trading in gold, tea, coffee, and spices. At the beginning of the 20th century, the export of coal and cement began through Teluk Bayur Port. Padang's infrastructure is now being equipped with a train line that connects Minangkabau International Airport with other cities in West Sumatra (Safwan, 1987).

This city has a variety of unique tourist attractions of various types from nature tourism, cultural tourism, museum tourism, natural tourism, artificial tourism, and culinary tourism, to various other types of tourism (Mandalia & Rizal, 2021). One of the cultural and historical

attractions in Padang is the Adityawarman Museum at Jalan Diponegoro No. 10. Padang Barat District has a variety of collections both from Minangkabau culture itself and from abroad. Adityawarman museum collections include geology, biology, archaeology, history, philology, numismatics, ceramics, ethnography, technology, and art. This museum is next to the Cultural Park in the middle of Taman Melati, a park where Padang residents play. The Michiels monument was erected during the Dutch colonial period, but according to the story, it was dismantled and the iron was brought to Japan. The shape of the museum building is based on the shape of the *Rumah Gadang* in Minangkabau, with *Rangkiang* on the side and statues that complete the building.

Adityawarman Museum is one of the public museums in West Sumatra. In government regulation Number 19 of 1995, the Adityawarman Museum is a place for storing, caring, securing, and utilising historical objects as material evidence of human works and culture and the natural environment, useful for supporting efforts to protect and preserve the nation's cultural wealth for the benefit of future generations. The Adityawarman Museum is known as a place for storing objects of Minangkabau cultural heritage that are still preserved. This museum contains various types of collections of objects made by humans that are still preserved and cared for. The museum functions as a place to collect, care for, and protect the culture of the Minangkabau community, which is useful for learning, getting to know culture, recreation, research and increasing the knowledge about Minangkabau heritage. The number of collections in the museum has various types and each object has unique characteristics, and cannot be separated from the attraction in Adityawarman Museum called *Rumah Gadang* which has a historical story. In addition to knowing historical objects, visitors also will know the cultural heritage of their ancestors in various forms. Tourists can also feel the emergence of a sense of nationalism and learn from this history. Tourists will visit the Adityawarman Museum because they have a sense of interest that arises in a person to make tourist visits. Interest is a feeling that arises in a person's heart to want to visit a tourist attraction that has its own charm.

Tourist attractions can be divided into two. The first, natural tourist attractions are tourist attractions created by God Almighty, natural beauty and their own uniqueness such as beaches, rivers, lakes, mountains, waterfalls, hills, flora and fauna. The second, artificial tourist attractions, the work and creations of human hands which consist of museums, historical heritage, arts and culture, agrotourism, traditional villages, hunting tourism, nature adventure tourism, recreation parks, event performances, festivals, and entertainment (Utama, 2017). Interest in visiting is basically a feeling of wanting to visit an interesting place to visit (Kotler & Keller, 2014). Interest in visiting is the desire of tourists to visit tourist destinations. Visiting interest is almost the same as buying interest. Tourists will want to visit tourist places if they are interested in visiting. Interest in visiting because of cultural tourism appeal and it has its own characteristics. Indicators of interest in visiting are plans to revisit, interest in visiting references, and interest in visiting preferences (Cronin & Taylor, 1992).

This museum is a historical and cultural tourist attraction, as well as educational for visitors. The number of visitors who visit this museum every year has decreased, due to an outbreak of the Coronavirus called Covid-19 which has hit the whole world and has a huge impact on human activities, especially travelling to historical and cultural tourist attractions, like visiting various schools in West Sumatra, even in Indonesia. During the Coronavirus outbreak, the government implemented restrictions on community activities in Indonesia (PPKM) and also Large-Scale Social Restrictions (PSBB) which were limited to tourist visits and VIP guest visits from various countries, which became an obstacle for tourists to travel. This can be seen from the number of visitors to the Adityawarman Museum which has decreased every year can be seen in the following table:

Table 1. Visitor Data at Adityawarman Museum 2017-2021

No	Year	Amount
1	2017	126.884
2	2018	106.804
3	2019	76.367
4	2020	17.934
5	2021	3.960

From the table above, it can be seen that the number of tourist visits at the Adityawarman Museum every year tends to experience a drastic decline in visitors, from 2019 to 2021. One of the reasons for the decline in visitors to the Adityawarman Museum is that the manager only focused on infrastructure so visitors are limited and only view the collection and cannot see the whole museum during the Covid-19 pandemic. However, the decline in the number of tourists did not become an obstacle for the Adityawarman museum being closed and it was not an optimal result of work. Basically, the management of the Adityawarman Museum has better potential now in an effort to increase the number of tourist visits to the Museum.

Service is an action or activity that can be provided by one party to another, which is basically intangible and does not produce property (Kotler, 2008). The definition of service in the *Kamus Besar Bahasa Indonesia* states that service is helping to prepare (take care of) what someone needs. Based on observations that have been made by researchers, the service is to provide a sense of comfort when tourists visit tourist attractions they visit. The service at Adityawarman museum provides excellent service in serving visitors or guests starting from visitors coming from the entrance or main gate of the Adityawarman Museum starting from coming and returning. But the services provided by service providers at the Adityawarman Museum are quite diverse, which are felt by visitors, some are good and some are bad. Of the various services provided at the museum, there are also services that are less impressive, such as museum guides that are less friendly to visitors who visit the Adityawarman Museum. Then it is difficult to find a guide who is ready to serve in every exhibition room. This is proven by the presence of visitors who have difficulty asking questions and finding out information about the collections in the exhibition hall. There are five service indicators, Tangible (physical evidence), Reliability, Responsiveness, Assurance (guarantee), and Empathy (Harfika & Abdullah, 2017; William, 2020).

Facilities in the form of (facilities and infrastructure) (Nugraha, 2013), facilities are environmental conditions that show the appearance, and capacity of an infrastructure facility, and the state of the surrounding environment, such as physical facilities (buildings), equipment, and supplies. Facilities are everything that is intentionally provided by service providers to be used and enjoyed by consumers which aims to provide the maximum level of satisfaction (Sofyan, 2013). Facilities are meeting the needs of visitors; complete facilities will make visitors interested in the attractions they visit. Based on observations made by researchers, the Adityawarman Museum has complete facilities, like toilets, places of worship, cafeterias, children's playgrounds, Wi-Fi, parking lots, trash cans, and various cultural museums that satisfy tourists visiting the Adityawarman Museum. The museum facility itself is equipped with an exhibition room, library room, collection storage room, route, and location of the museum, and an introduction to the culture of each region. However, the facilities in the museum, such as toilets are still lacking, so at peak season, it is difficult to use the toilet, which creates a long queue. According to Spillane's theory, the facilities indicators in this study are grouped into three parts. Facilities that are needed and felt very necessary as long as visitors are in a tourist attraction. Some of the most important things for the main facilities are cleanliness, comfort and beauty. Supporting facilities are facilities that complement the main facilities so that tourists will feel more at home. Supporting facilities are seen from the parking lot, shopping area, and places to eat. Visitor facilities are facilities that are complementary to the main facilities so that tourists are fulfilled whatever needs such as road access and parking areas.

The security factor is a facility that can guarantee the physical and mental security of property and tourists. Security is very important in making a visit to a tourist attraction that is visited (Ikhwan, 2018). Based on the observations that researchers have made, the Adityawarman Museum provides comfort and cleanliness, which starts when visitors enter, they must show a ticket and during their visit, security guards provide comfort by directing visitors. Starting from the cleanliness of the museum maintained by the security forces, the security forces have made many changes that ensure the safety of tourists who want to visit the museum to spend vacation time and add new knowledge. Safety and comfort for tourists is one of the factors that can determine tourists' decisions to visit a tourist attraction which is important for a tourist attraction (Khalik, 2014; Fanani & Pangestuti, 2017). The safety indicators used in this study are cleanliness and comfort.

In an effort to increase the number of tourist visits to the Adityawarman Museum, there are several factors that affect the interest in visiting the museum, such as service, facilities, and security. Therefore, the author of this study wanted to know about these factors in influencing interest in visiting the Adityawarman Museum which needs to be done as an effort to optimise the management of the Museum. This study aims to determine the effect of service, facilities, and security factors on the interest of visiting tourists.

Methodology

This research is field research using a quantitative research approach. This research is called field research because it recognizes data by searching directly in the field to find existing problems to examine the effect of services, facilities, and security on the interest of tourists visiting the Adityawarman Museum. The population in this research are tourists who visit the Adityawarman Museum. The sampling technique used in this study is incidental sampling. Incidental sampling is a sampling technique based on chance, that is, anyone who coincidentally/incidentally meets a researcher can be used as a sample if it is seen by accidental people as a source of data (Sugiyono, 2013).

Data collection techniques are processed through questionnaires and documentation. Questionnaires that will be distributed must go through the pilot stage. The test of the research instrument used data from 30 respondents and was tested with a validity test with product moment with a significance level of 5% and a reliability test with Cronbach Alpha value > 0.60 . The data analysis technique is to determine the effect of service, facilities and security variables on the interest of visiting tourists by using the classical assumption test. The classical assumption test in this study is using the normality test and the multicollinearity test for the two equations. After the data is analysed, it can be done with multiple linear regression and hypothesis testing to determine the effect of the dependent and independent variables.

Results and Discussion

Results

Before testing the hypothesis, a prerequisite analysis test must be carried out. In this study, there are three analysis prerequisite tests, the classical assumption test (normality test and multicollinearity test), the Multiple Linear Regression test and the Determination test. The normality test is used to determine whether the data in the population is normally distributed or not. In the normality test, the researcher uses the Skewness and Kurtosis ratio analysis test. The data can be said to be normally distributed if the ratio value is between -2 to +2.

Table 2. Normality Test

Descriptive Statistics				
	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Unstandardized Residual	.800	.241	.610	.478

Based on Table 2, it can be seen that the skewness ratio = $0.800/0.241 = 3.3195$, while the kurtosis ratio = $0.610/0.478 = 1.2761$. Because the ratio of skewness and kurtosis is between -2 to +2, it can be concluded that the data is normally distributed.

Table 3. Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Service	.563	1.776
Facility	.424	2.356
Security	.533	1.876

Based on the results above, it can be seen that the tolerance values are 0.563, 0.424, and 0.533, which means the results are > 0.10 , and the VIF values are 1.776, 2.356, $1.876 < 10$. From these results, it can be concluded that the regression model used in this study has no multicollinearity.

Table 4. Multiple Linear Regression Test

Model	B	T Count	Sig.	R²	F Count	Sig.	Inf.
(Constant)	3.432	2.109	.038	0, 594	46, 843	0, 000	Significant
Service (X1)	.078	2.763	.007				Significant
Facility (X2)	.377	3.676	.000				Significant
Security (X3)	.214	3.151	.002				Significant

The results of the multiple linear regression analysis when it is used in the equation are:

$$Y = 3.432 + 0.078 X_1 + 0.377 X_2 + 0.214 X_3$$

Based on the regression equation above regarding the variables that affect interest in visiting, it can be explained as follows:

- The constant is 3.432, meaning that if X_1 , X_2 , and X_3 are 0 or there are no services, facilities, and security, the interest in visiting the Adityawarman Museum is 3.432 units.
- The regression coefficient of the service variable (X_1) is 0.078, meaning that if the number of services increases by 1 unit, the interest in visiting will increase by 0.078 units. Assuming other variables are considered constant.
- The variable regression coefficient (X_3) of Security is 0.214, meaning that if the number of security increases by 1 unit, the interest in visiting will increase by 0.214 units. Assuming other variables are considered constant.

Coefficient of Determination Test

To see how much effect service, facilities and security have on interest in visiting, see the table above. Based on the table above, it can be seen that the coefficient value of R Square (R^2) is 0.594 or 59.4%. It can be concluded that the magnitude of the effect of service, facilities, and security variables on the interest of visiting tourists is 0.594 or 59.4%. while the remaining 40.6% is explained by other variables not included in this study.

Hypothesis testing

The t-test is used to determine whether the independent variable has a significant effect or not on the independent variable. The table above can be seen to determine whether the service, facilities and security variables have a significant effect on visiting interest.

$$\begin{aligned} \text{Table} &= t(\alpha / 2 ; n - k - 1) \\ &= (0,05 / 2) ; 100 - 3 - 1 \\ &= (0,025 ; 96) \\ \text{Table} &= 1,985 \end{aligned} \quad (1)$$

- Known value of sig. for the effect of X_1 (service) on Y is $0.007 < 0.05$ and the value of count is $2.763 > t_{\text{table}} 1.985$, so it can be concluded that H_{a1} is accepted which means there is an effect (X_1) of service on Y's visiting interest.
- Know the value of sig. for the effect of X_2 (facilities) on Y is $0.000 < 0.05$ and the value of t_{count} is $3.676 > t_{\text{table}} 1.985$, so it can be concluded that H_{a2} is accepted which means there is an effect (X_2) of facilities on Y's visiting interest.
- Known value of sig. for the effect of X_3 (security) on Y is $0.002 < 0.05$ and the value of t_{count} is $3.151 > t_{\text{table}} 1.985$, so it can be concluded that H_{a3} is accepted which means there is an effect (X_3) of security on interest in visiting Y.

Discussion

The Effect of Service on Visiting Interest

Based on the results of the T-test, the service variable consisting of physical evidence, responsiveness, reliability, and assurance has a significance value of < 0.05 then ($0.007 < 0.05$). So H_{01} is rejected and H_{a1} is accepted, meaning that the service has a significant effect on the interest in visiting the Adityawarman Museum. Then the service multiple regression analysis has a value of 0.078, indicating that if the service increases by 1 unit, the interest in visiting will increase by 0.078%. The service coefficient is positive, so the service has a positive effect on interest in visiting the Adityawarman Museum. Service is an action or activity regarding behaviour in providing service products or goods such as physical evidence in accordance with what is delivered, reliability, responsiveness and assurance (Syahadat, 2006). This research is in line with that conducted by Selva (Desnia, 2020) which shows that service quality has a positive and significant effect on customer satisfaction. The conclusion from the service variable, the better the service provided, the more interest in visiting will increase. In this case, it proves that one way to grow tourist interest is by providing the best service. With good service, it creates a sense of interest for tourists to visit again. If tourists are satisfied with the services provided, they will compare the services provided. If tourists are really satisfied, they will make repeat visits and tourists will tell many people that the Adityawarman Museum provides good service to every visitor. Therefore, service is a very important aspect in a company that has been established.

The Effect of Facilities on Visiting Interest

Based on the test results of the T-test of the facility variable on interest in visiting, it shows a significance value of < 0.05 then ($0.000 < 0.05$). So H_{02} is rejected and H_{a2} is accepted, meaning that the facility has a significant effect on interest in visiting the Adityawarman Museum. Based on multiple regression analysis, the facility has a value of 0.377, indicating that if the facility

increases by 1 unit, the interest in visiting will increase by 0.377%. The coefficient of the facility is positive, so the facility has a positive effect on interest in visiting the Adityawarman Museum. The results of this study are different from the research conducted by (Afralia and Alfian, 2019) where the results of the study stated that the facilities had no effect on tourist visits, while based on the results of the study, the results showed that the facilities had a significant positive effect on the interest of visiting. So the conclusion is the more complete the facilities provided, the interest in visiting will also increase. In this case, it proves that one way to grow tourist interest is to provide complete facilities. With complete facilities, tourists are increasingly interested in visiting. According to the researchers, the Adityawarman Museum has good infrastructure such as collection attractions, places of worship, toilets, free WIFI, living rooms, children's playgrounds, and also the availability of complete information boards related to history that add to our knowledge. cultural thing.



(Source: Author Documentation, 2022)

Figure 1. Museum Adityawarman



(Source: Author Documentation, 2022)

Figure 2. The Facilities of The Adityawarman Museum

The Effect of Security on Visiting Interest

Based on the test results of the T-test of the security variable on interest in visiting, it shows a significance value of <0.05 then $(0.002 < 0.05)$. So H_{03} is rejected and H_{a3} is accepted, meaning that security has a significant effect on interest in visiting the Adityawarman Museum. Based on multiple regression analysis, security has a value of 0.214, indicating that if security increases by 1 unit, visiting interest will increase by 0.214%. The safety coefficient is positive, so security has a positive effect on interest in visiting the Adityawarman Museum. This research is the same as that conducted by (Sondakh, 2016) which shows that security has a positive and significant effect on visiting interest. So, in conclusion, the better the security provided, the more interest in visiting will increase. In this case, it proves that one of the factors to foster tourist interest is by providing good security, with good security tourists feel safe during their visit.



(Source: Author Documentation, 2022)

Figure 3. The security of the Adityawarman Museum



(Source: Author Documentation, 2022)

Figure 4. The security of the Adityawarman Museum

The Effect of Service, Facility, and Security on Visiting Interests

Based on the simultaneous F test, the variables of service, facilities, and security on interest in visiting the Adityawarman museum with $f_{\text{count}} 46,843 > f_{\text{table}} 2,698$, this shows that the service, facility, and security variables together affect the interest in visiting variable Y. The results show that the service variable, facilities and security are factors that affect the interest of tourist visits. The better the service, facilities and security at the Adityawarman Museum, the greater the interest in visiting tourists to the Adityawarman museum. So this research is the same as previous research conducted by Sondakh (2016). This can be seen from the results of research conducted by Sondakh, namely the service, security and attractiveness variables simultaneously and partially all research variables affect tourist interest.

Conclusions

Based on the research conducted and has gone through the stages of data collection, processing and data analysis results regarding the effect of services, facilities and security on interest in visiting the Adityawarman Museum, the conclusions are as follows: The service variable has a significant effect on visiting interest. The facility variable has a significant effect on visiting interest. The security variable has a significant effect on visiting interest. Variables of service, facilities and security simultaneously affect the interest in visiting.

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Green economy and ecotourism-based development model of Oling River Food, Banyuwangi

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Abstract: This study aims to analyse the application of the concept of green economy and ecotourism to the tourist attraction of Oling River Food in Banyuwangi, East Java, Indonesia, as well as to form a model for developing the tourist attraction of Oling River Food. This study uses a case study approach. Data were collected by observation, documentation, and interviews. After the data is collected, an interactive analysis technique is carried out namely data reduction, data presentation, and conclusion. The results show that the tourist attraction of Oling River Food has implemented two indicators from five indicators of environmentally sound development and five indicators from ten indicators of the green economy concept. As for the concept of ecotourism, the tourist attraction of Oling River Food has implemented two indicators out of five indicators. The Oling River Food tourist attraction development model that is made contains the potential, problems, solutions, and outcomes. The tourist attraction of Oling River Food has potential that must be continuously developed. The development model built is expected to be the basis for the development of tourist attractions that still pay attention to environmental, economic, and social factors.

Keywords: tourist attraction, green economy, ecotourism, development model.

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Introduction

Indonesia has the potential of natural resources that stretch from Sabang to Merauke and have characteristics according to the typology of the region wrapped in local wisdom. Aware of this, the Government of Indonesia is developing the tourism sector. Tourism is the second largest foreign exchange contributor in Indonesia (Kominfo, 2017). In 2020, the tourism sector which is projected to become the core economy is paralyzed due to Covid-19. The government carries out a national economic recovery (pemulihan ekonomi nasional/PEN) program including new habits in the tourism sector to maximize potential in order to stimulate the economy and community independence. Tourism trends are shifting to digital and nature-based tourism.

Banyuwangi is also making improvements in all sectors. As a tourism city, Banyuwangi has various attractions. Through a survey conducted by a tour booking service, Banyuwangi is in the third position of the favourite tourist destination to be visited (Yanuar, 2022). Based on data from the Banyuwangi Regency Culture and Tourism Office, it was recorded that 26.000 tourists filled tourist destinations in Banyuwangi in early 2022. This shows the optimism of tourism in Banyuwangi (Banyuwangi, 2022).

Oling River Food is one of the natural tourist attractions in Banyuwangi that uses the river as a means of attraction on the banks of the Dam Limo river, Tegaldlimo Village towards Alas Purwo National Park. Oling River Food utilises the charm of a 2 kilometre long river to become a tourist attraction (Ardian, 2019) in the form of various processed Oling fish or eels and riverside tours. The number of tourist visits in general ranges from 30 to 100 people per day. Efforts to maximise the potential of Oling River Food need to be carried out across sectors. Based on data from the village manager and government, there are 8 food stalls at Oling River Food which are filled by local people. In addition, the river crossing attraction using 5 boats is also managed by the local community. From an economic perspective, the potential of Oling River Food can be

maximized so that it will have a positive impact on the community. Therefore, it is necessary to build and develop Oling River Food from various aspects.

Tourism raises anxiety over externalities in the form of environmental and social degradation (Yuanjaya, 2020). Environmental degradation such as air pollution and excessive use of natural resources (West et al., 2006). The owner of the kiosk at Oling River Food also experienced social and environmental impacts. Based on data from village managers and government, an average of 8 thefts occurred at each kiosk within a month. In addition, there was damage to the boat by several elements of the surrounding community due to social jealousy. In the environmental sector, the potential of rivers that are exploited as the main attraction of Oling River Food has decreased the quality of water clarity and cleanliness due to various attractions and the number of tourists.

These problems can be overcome by development based on the concept of green economy and ecotourism. The green economy concept has been applied to various tourist attractions to develop existing tourist attractions, as seen in research (Berlianantiya & Andriani, 2018 and Kominfo, 2017; and Wiratma & Nurgiyanti, 2019). Not only on tourist attractions, the concept of green economy is also applied to the development of tourist villages (Sari et al., 2012), (Noviarita et al., 2021) as well as in national parks (Asrudi & Puspa, 2021). The concept of ecotourism is one of the developments of sustainable tourism by prioritising aspects of nature conservation and community welfare (Puspitasari et al., 2021). The concept is applied in the development of tourist attractions such as in research (Puspitasari et al., 2021; Noviarita et al., 2021; Yulistianti & Brahmento, 2015) also supported by community participation such as in research (Sugiarti, 2015; Kaharuddin et al., 2020).

With these two concepts, it will create an ideal model of a tourist attraction that can be developed and harmonised at the government level. This is important because the role of stakeholders determines success in ecotourism development. The purpose of this study is to develop a model of a green economy-based tourist attraction product with a mathematical model approach. This integration can create an Oling River Food tourist attraction that is sustainable from the environmental aspect, independent from the economic aspect and has a positive impact from the social aspect.

The novelty of this research is that there is a combination of the concepts between ecotourism and green economy which are used as the basis for making models for the development of tourist attractions. In previous studies, modelling was based on the concept of ecotourism as was done by (Sugiarti, 2015). In addition, previous research related to the green economy only discussed the application or application of this concept in a tourist attraction.

Methodology

This research on the development model of the Oling River Food tourist attraction based on green economy and ecotourism was carried out at Oling River Food Tegaldlimo, Banyuwangi Regency. There are various activities that visitors or tourists can do, namely cruising the river by boat, enjoying local culinary specialties or recreation and leisure.

This study uses a case study approach. A case study approach was chosen to explore cases that occurred in the development of a nature-based tourist attraction. Data was collected by observation, documentation and interviews. The resource persons in this study were the chairman of the Oling River Food management, the village head of Tegaldlimo, the Banyuwangi Regency Water Service and the Banyuwangi Regency Tourism Office. The data collected is data related to the economy of the surrounding community, data on food stall sellers, and data on environmental impacts after the Oling River Food tour. Primary data obtained in the form of economic data, environmental data and social data. The secondary data is in the form of records or documents related to the profile of the Oling River Food tourist attraction.

After the data is collected, an interactive analysis technique is carried out which has three components, namely data reduction, data presentation and conclusion drawing. After that, thematic analysis techniques were carried out which functioned to identify themes and sub-themes that were oriented to the potential, problems and opportunities related to the development of tourist attractions. The data analysis resulted in a conclusion in the form of a

tourist attraction development model that can be seen from the economic, social and environmental panels based on green economy and ecotourism.

The development model created in this study is the CBED (Community Based Ecotourism Development) tourist attraction development model which contains context, solutions and outcomes (Sugiarti, 2015). The stage for obtaining the model after the data reduction analysis is carried out is through creating a context as the first stage. The context in this study includes two things, namely potential and problems. The second stage is to make a solution based on the existing context. The final stage is to make the expected outcome.

Results and Discussion

Results

The tourist attraction of Oling River Food is located on the banks of the Dam Limo river for 2 kilometres, Tegaldlimo Village, Banyuwangi Regency. Activities that can be done by visitors or tourists there are cruising the river using a boat which is also one of the Banyuwangi Festival activities, enjoying Oling River Food specialties as well as recreation and leisure. In addition, Oling River Food tourism is also used as a gathering place or activities for community groups such as joint gymnastics, and others. Oling River Food Tourism has 8 food stalls and 5 boats to cross the river which are managed by the local community. The number of visitors or tourists who come to Oling River Food ranges from 30 to 100 people every day.

In terms of attractiveness, Oling River Food Tourism has natural beauty which is the main value that attracts visitors. The green expanse of the river accompanied by shady trees on the banks of the river forms the natural beauty of the Oling River Food tour. Cultural attractions, sports facilities and game facilities also complement the Oling River Food Tour. Visitors can take advantage of the wide riverbank as a place to play and exercise. The characteristic of Oling River Food Tourism is culinary tourism of Oling fish or eel. Visitors can enjoy Oling fish or eel food along the river with views of the green river. Around the Oling River Food tourist attraction, there are also several lodging and transportation options that make it easier for visitors to visit Oling River Food Tourism.

In terms of the environment, the attraction of Oling River Food Tourism is visited by visitors because it has good lighting due to direct sunlight in the morning and lighting at night. Oling River Food tourist attraction has good air circulation. The cleanliness of rivers and riverbanks Oling River Food Tourism is also always maintained and cared for by local people and visitors so that cleanliness is always maintained. For security, because Oling River Food Tourism does not have a door, several times there have been thefts at food stalls and the destruction of existing boats. This has caused public anxiety and concern.

The existence of the Oling River Food tourist attraction has an impact on the economy of the surrounding community. With the opening of the Oling River Food tour, the surrounding community opened food stalls and provided riverboat facilities which were managed by the community themselves with assistance from the relevant agencies. Oling River Food tourism has an impact on regional income because many people feel the economic benefits of Oling River Food tourism.

In addition to environmental and economic aspects, Oling River Food tourism also has an impact on social aspects. Co-management of tourist attractions makes the majority of the community more friendly, harmonious and cooperative. The community also learns to be a tourism person who applies *Sapta Pesona* to every visitor who comes. However, it is undeniable that the unequal distribution of people who feel the positive impact of Oling River Food creates a sense of envy from some people. Therefore, by looking at the potential and opportunities of Oling River Food tourism, this tourist attraction can continue to be developed so that the wider community can feel its positive impact.

Seeing the potential and opportunities of the Oling River Food tourist attraction, this tourist attraction should continue to be developed. Visitors' demand for attractions that uphold natural beauty and create tranquillity for visitors can be provided by the tourist attraction of Oling River Food. Development needs to be carried out by taking into account the concepts of ecotourism

and green economy so that the development carried out not only pays attention to attractiveness but also pays attention to economic, environmental and social aspects.

Application of the Green Economy Concept in the development of Oling River Food tourist attraction.

1. Application of environmentally sound development principles.

a. The principle of intergenerational justice

Maintaining the beauty and cleanliness of the river which is the icon of Oling River Food is the key to justice between generations. The people who are the key managers of Oling River Food accompanied by the irrigation and tourism services always maintain the cleanliness and beauty of the river. This must be maintained considering the sustainability of the existence of Oling River Food tourism.

b. The principle of justice in generations

The principle of fairness in generations has been applied at Oling River Food. This can be seen from the types of activities available at Oling River Food that can be applied by various ages. In addition, the existing facilities are also managed and enjoyed together.

c. Principles of early prevention

Culinary Oling fish or eel which is the main menu and characteristic of Oling River Food cannot be enjoyed by visitors or tourists every day. Visitors or tourists can enjoy it only on Saturday or Sunday. This is because the supply of eel or Oling is limited and the price is quite expensive. There needs to be anticipation in the form of empowering eel or Oling carried out by the local community so that the supply of eel or Oling is fulfilled and can reduce prices.

d. Principles of protecting biodiversity

The principle of protecting biodiversity can be seen from the many shady trees located along the Oling River Food river. However, so that this principle can be maximised, various types of flora can be planted and preserved in a very large area. In addition, the presence of various types of fauna can also be an attraction at Oling River Food.

e. Environmental cost internalisation

The Village Government, Regency Government and related agencies have not allocated special costs for maintenance and damage at Oling River Food. This cost is important, considering that Oling River Food is included in the Banyuwangi Festival agenda and is one of the natural tourist attractions that can continue and be developed.

2. Application of green economy principles

a. Prioritising use value, intrinsic value and quality

Oling River Food utilises the river as the main attraction that binds visitors or tourists. Realising that the river presents beauty and tranquillity, the community complements it with local culinary specialties and river crossing attractions. This is the application of the use value, intrinsic and quality owned.

b. Following the flow of nature

The use of a 2 kilometre green river and activities that can be carried out on the banks of the river are potentials that are utilised by the community to make Oling River Food an attractive attraction. Natural resources owned are wealth that is used as the main attraction of Oling River Food.

c. Garbage is food

The garbage in Oling River Food is garbage that comes from leaves that fall from trees along the river. The leaf litter naturally and commonly falls along the river and does not interfere with the beauty or cleanliness of Oling River Food. The waste from food stalls is collected in landfills so that it does not disturb visitors or tourists. However, the waste has not been separated between organic waste and inorganic waste so that it has not decomposed and become food in the soil.

d. Neat and diversity of functions

The local community consisting of sellers at food stalls and river boat providers, local village governments, district governments, and related agencies, namely the tourism office and the irrigation service, have their respective functions in accordance with the existing duties and

authorities. In the management aspect, the community is the main actor who has the main function in managing Oling River Food

3. Appropriate scale/relatedness scale

Utilization of rivers and riverbanks is a very effective tourist attraction. However, looking at the potential and opportunities, there are still many areas or potentials that can be developed. Thus, the wider community can feel the use value of this attraction

a. Diversity

There are various activities that visitors or tourists can do at Oling River Food, namely special culinary, along the river by boat, doing various activities with groups as well as recreation and leisure.

b. Self-efficacy, self-organization, and self-design

The attraction that exists can grow and improve self-ability, self-organization and self-design than the community involved in managing it. Due to the lack of maximum potential and opportunities developed, the ability of the community or human resources at Oling River Food has not been fully honed properly. There needs to be coaching and socialisation so that existing human resources can improve in terms of capabilities and organisation.

c. Participation and democracy

Participation and democracy have been implemented at Oling River Food. This can be seen from the community's participation from the beginning of the opening of Oling River Food to its management. In management, the people involved are also free to express their opinions and contribute to decision making.

d. Creativity and community development

From the beginning of the opening of Oling River Food, it can be seen that the number and variety of activities that can be done by visitors and the variety of culinary offerings are still constant. Creativity is not yet visible in the management of Oling River Food, so this attraction still needs to be developed and maximised.

e. Strategic role in landscape-made environments and spatial design

The Oling River Food tourist area already has a good layout, it can be seen from the river area, riverbanks and typical culinary. which is still quite wide. This will further maximise the potential of Oling River Food and increase the interest of visitors or tourists.

4. Application of the concept of Ecotourism in the development of Oling River Food tourist attraction

The concept of ecotourism combines environmental and economic approaches. According to Low Choy and Heillbronn (1996), the five principles of ecotourism are environment, community, education and experience, sustainability and management.

a. Environment

Oling River Food Tourism offers natural beauty of nature. The existence of a stretch of green river and shady trees and a large area on the riverbank is the natural beauty that Oling River Food has.

b. Public

The existence of Oling River Food creates job opportunities for the local community. Local people also sell special foods at the stalls built at Oling River Food. In addition, the community also provides boat facilities to cross the river. This has an impact on the community's economy. Thus, the community is affected by this attraction.

c. Education and experience

In addition to natural beauty and promises a calm atmosphere, attractions must also provide educational facilities and provide experiences for visitors or tourists. Seeing the potential that is owned, it can be made a means of fishing for Oling or eel that provides an experience for tourists. In addition, educational facilities for planting and picking fruit can also be made in large riverbank areas.

d. Sustainable

The cleanliness of the river that is always maintained and the preservation of the trees in Oling River Food make this attraction sustainable. This can be maximised by providing

education to the public regarding waste management at Oling River Food. If waste is managed properly, this will make Oling River Food a sustainable attraction.

e. Management

In order to develop optimally and sustainably, collaboration from various parties is needed. The local community, village government, district government, irrigation service and tourism office must be actively involved and collaborate in management.

Discussions

Oling River Food tourist attraction development model

The tourist attraction of Oling River Food has various potentials that need to be developed and problems that must be addressed immediately. The Oling River Food Tour was opened at the initiative of the local community. Then with the help of the village government, district government, irrigation service and tourism office, Oling River Food tourism is packaged to be more attractive and is scheduled in the Banyuwangi Festival program. In the process, Oling River Food must continue to be maintained and cared for by the local community as the main manager. Therefore, the right development for Oling River Food is community-based development. By involving the community as the main manager by paying attention to the concept of green economy and ecotourism, Oling River Food can become a sustainable attraction in environmental, economic and social aspects.

The potential that exists in Oling River Food is the potential for beautiful and sustainable natural resources, human resources that are quite large and active in management, as well as the potential for facilities and attractions that can be continuously created at Oling River Food. The problems that exist in Oling River Food are the lack of public knowledge about tourism, the lack of community creativity to be able to develop attractiveness and the limited funds they have to be able to add facilities. Seeing the potential and existing problems, the solutions that can be applied are assistance or socialisation to managers or local communities, promotion and marketing as well as policies and commitments between the government and related agencies. With this solution, it is hoped that the Oling River Food tourist attraction will become a sustainable attraction from an environmental, economic and social perspective and the community will benefit from the development of a tourist attraction.

The results of this research stated that to develop Oling River Food can be seen first in terms of potential and problems faced. The potential is in the form of natural resources, human resources and facilities and attractions. The problems faced are lack of knowledge, lack of creativity and limited funds. While the solutions that can be faced are accompaniment, policy and commitment, marketing and promotion. The expected outcome is continuing attraction in terms of the economic, social and environment, and society benefits. These results are a development of research conducted by Sugiarti (Sugiarti, 2015). The outcome of this research is not only felt by the community, but also concerns sustainable attractiveness. In addition, the solutions obtained in this study also not only concern solutions in terms of human resources, but also concern assistance from external parties or academics in the form of accompaniment.

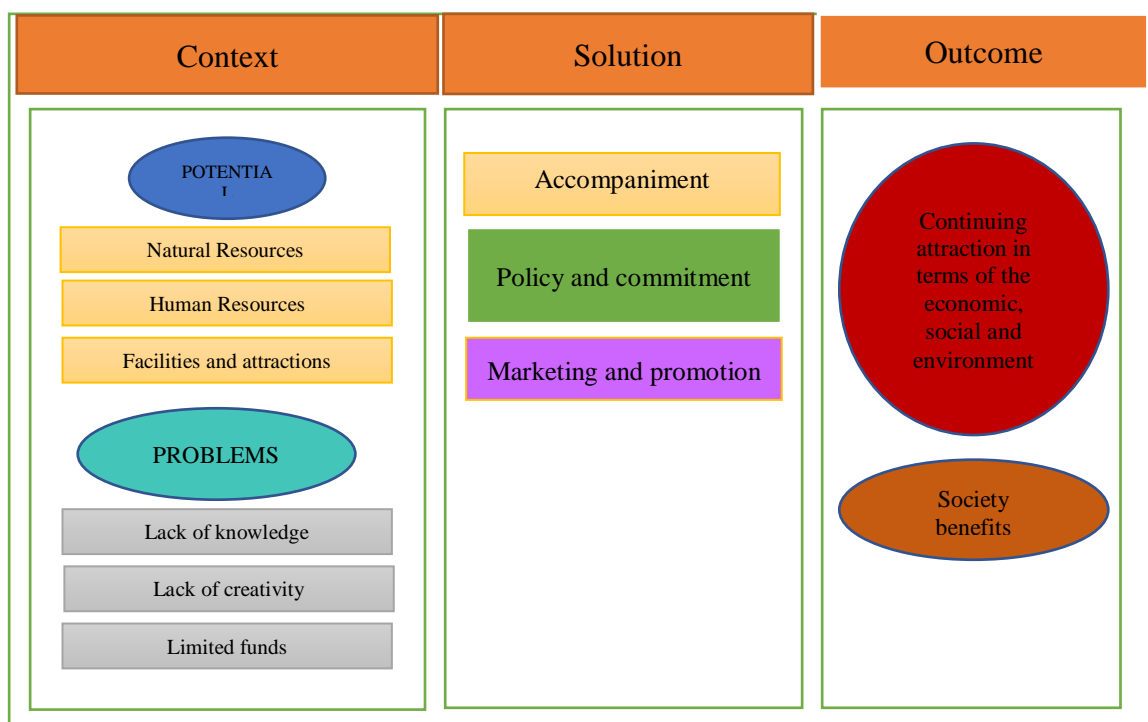


(Source: Haorrahman Web Article, 2019)

Figure 1. Oling river Food Entrance



(Source: Research Team, 2022)
Figure 2. Oling River Food's River



(Source: Research Team, 2022)
Figure 3. Tourist Attraction Development Model

Conclusions

In accordance with the concept of environmentally sound development, the tourist attraction of Oling River Food has implemented two of the five indicators of environmentally friendly development. The indicators that have been applied are the principle of intergenerational justice and the principle of justice in generations. Based on the green economy concept, the tourist attraction of Oling River Food has implemented five indicators out of ten indicators of the

green economy concept. Five indicators that have been implemented are prioritizing use value, intrinsic value and quality, following the flow of nature, rapid and diverse functions, diversity and participation and democracy.

As for the concept of ecotourism, the tourist attraction of Oling River Food has implemented two indicators out of five indicators, namely in terms of the environment and society. Based on the results of this study, a model for developing the tourist attraction of Oling River Food was made which contains potential, problems, solutions and outcomes. This model is expected to be the basis for the development of tourist attractions in order to pay attention to environmental, economic and social factors.

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Kampung Susu Lawu on the slopes of Mount Lawu as a tourist destination

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Abstract: This study aims to analyze the potential attractiveness of tourist destinations and the obstacles faced in developing the tourism potential of Kampung Susu Lawu on the slopes of Mount Lawu, Magetan Regency, East Java, Indonesia. It uses a qualitative descriptive research method. Data collection techniques were carried out by triangulation, with inductive data analysis using more than one data acquisition method. The results of the study show that the tourist destination of Kampung Susu Lawu (KSL or Lawu Milk Village), actually has a potential attraction that can be enjoyed by tourists which includes nature, culture, and man-made. Land management permits are expected to increase the welfare of tourism workers, open up job opportunities, provide a source of income for families, increase the variety of jobs, and increase knowledge in tourism business management.

Keywords: tourist village, milk, attraction, amenity, accessibility, ancillary.

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Introduction

Village has always been an interesting topic of discussion because it is an asset that never runs out. It survives with a cool and natural atmosphere. It is suitable for those who want to refresh their minds from the daily grind (Ambarwati, 2022). Rural development is now one of the central government's priority scales. This can be seen by the distribution of village funds provided. Village is slowly starting to realize its potential for growth. There are many things that can be developed by the village government through the Village Fund. One of them is the tourism sector. In this case, "Tourist Village (Desa Wisata)" is usually a rural area that has several special characteristics that are worthy of being a tourist destination. In the tourist village paradigm, people still have relatively original traditions and culture (Mahadewi et al., 2022; Dewi et al, 2023).

In addition, several supporting factors such as special food, agricultural systems and social systems also color the tourist village area. In addition to these factors, natural resources and the environment that are pristine and preserved are one of the important factors of a tourist village area. Tourist villages can improve the welfare of tourism workers with the existence of tourist villages including opening jobs, sources of family income, increasing employment, increasing knowledge in the field of tourism business management, places that can be developed into tourist destinations that are specifically needed to fulfill the four components tourism which is called 4A, namely attractions, accessibility, amenities, and ancillary (Adnyana et al, 2022).

The approach to developing a tourist village includes sustainable tourism, ecotourism-based tourism and community-based tourism. Community-based tourism is a form of tourism that prioritizes community ownership and active participation, provides education to local communities and visitors, promotes cultural and environmental protection, and provides economic benefits to communities. Sustainable tourism is almost synonymous with green tourism. According to Ahmad (2021), the green tourism concept includes tourism programs that minimize the negative aspects of conventional tourism on the environment and enhance the cultural integrity of the local community. Septiawati et al. (2023) states that green tourism brings up development in perfect harmony between the natural and socio-cultural environment represented by all

stakeholders of the tourism business. In fact, according to Pertama et al. (2022), green tourism is very suitable for tourist villages.

Magetan Regency Government (Pemkab) together with the Dompot Dhuafa Zakat Charity Institute inaugurated a new tourist destination Agro-tourism Kampung Susu Lawu (KSL or Lawu Milk Village) located in Singolangu Hamlet, Sarangan Village, Plaosan District, Magetan Regency, East Java. This tourist destination is expected to improve the economy of the local community. Kampung Susu Lawu Agrotourism (KSL) is an integrated nature tourism concept, equipped with a dairy farming center, mountain climbing tour packages, a dairy farming center, agricultural areas and other facilities. This location is approximately one kilometer from the tourist area of Sarangan Lake, Magetan.

Because it was only inaugurated in November 2020, Kampung Susu Lawu will continue to improve for a better condition. Therefore, at this time there are no official travel hours, to be used as a tourist destination that can be a choice of tourist and educational destinations, of course while maintaining health protocols during a pandemic. Currently, Pemkab is trying to complete the third phase of KSL construction. The projects carried out include a parking lot as well as the creation of an educational garden and a garden of plants. Currently there are 42 dairy farmers in KSL with a total of 300 cows.

Identification of potential tourist attractions can be seen from the 4A components (attractions, amenities, accessibility, ancillary), according to Cooper (1993) in Suwena (2010). Each destination that will become a MICE destination must meet the standards set by the authorized agency with the requirements for the Development of a MICE Destination which broadly include accessibility; attractions; facility; as well as human resource and stakeholder support (Permen Par No: 5 of 2017). Until this research was conducted, there had been no research discussing the potential of KSL, but this area has become a Real Work Lecture (Kuliah Kerja Nyata/KKN) – Institut Teknologi Sepuluh November Surabaya (ITS) which empowers the people of Kampung Susu Lawu (KSL) through integrated tour guide training. ITS invited three tourism experts, including the Head of the Tourism Management Division of the Magetan Regency Tourism and Culture Office (Eka Radityo), Chair of the Magetan Tourism Awareness Group Communication Forum (Widia Astuti), and Madiun tourism activist (Mitra Abdul Azis, S. Par), on September 2021.

Tourism development in Indonesia is based on Community Based Tourism, that is: from the community, by the community, and for the community. Tourism with a cultural perspective, which includes all the creations, tastes and work of the people, which is one of Indonesia's main assets and brings competitive advantage. Sustainable tourism is respecting and preserving the environment for future generations (Ardika, 2003). As published in <http://tourismbali.wordpress.com/2010/09/>, according to Medlik (Adnyana et al., 2022), there are four aspects (4A) that must be considered in tourism offerings. These aspects are as follows: (a) attractions, (b) accessibility, (c) amenities, and (d) ancillary.

The research was conducted in Singolangu Village, Magetan Regency, East Java from July to September 2020, and there has been no preliminary research because this tourist destination is still new. In fact, there have been several studies on Kampung Susu Lawu, such as Santoso et al. (2022), Sholichah & Oktoliya (2021), Harmunisa ety al. (2021), Ichwanny & Rustandi (2022), and Hukama (2022) but no one has examined its existence as the research under study.

Methodology

This study uses a qualitative descriptive research method. According to Sugiyono (2016), the method used to analyze data is to describe or describe the data that has been collected as it is without intending to make generally accepted conclusions or generalizations. Qualitative research method is a research method used to examine natural objects. Data collection techniques were carried out by triangulation (combining), data analysis was inductive in nature, and the results of qualitative research emphasized meaning rather than generalization (Sugiyono, 2016).

This research method aims to obtain actual information and then present it in the form of narratives, tabulations, pictures, and so on to be described according to the purpose of writing.

In process of collecting data is done by way of interviews. In depth to the source, namely to the stakeholders (5 informants representing the community, managers, and village government officials), observation and literature studies. Reduction is done to select, simplify, change data, sharpen, direct, move unnecessary, and organize. Presentation of data is done in the form of narrative text, matrices, and charts. Then draw conclusions that are verified during the research.

Interviews were conducted with five informants intensively with a predetermined period of time so that in-depth information was obtained. Five informants in this study conducted interviews and conducted three times a week. The interview technique used is structured interviews. Observation is a way of collecting data by recording information directly during research. The observation used in this research is non-participatory observation, which is only observing the activities carried out by the object, but not involved in the activity. In general, observation is used to observe directly in the field. The aim is to get a clear picture of the tourism potential of KSL. Documentation is to complete the use of observation and interview methods (Sugiyono, 2016), which is a record of events that have passed and can be in the form of writing, drawings, or monumental works. Data processing aims to transform raw data from interviews, observations, and documentation into better data so that it is relevant and provides direction for further studies. Based on the formulation of the problem, the research data processing technique is to describe in full what happened in the field in detail and then compare it with the existing theory. The stages in processing this data model are as follows: data exposure, presentation of data in the form of a description aims to explain all data that has been collected and reduced so that it is easy to understand and the language so that conclusions can be drawn.

Results and Discussion

Results

The Plaosan District area as well as supporting demographic data and facilities available in Kampung Susu Lawu can be seen at Figure 1 and Table 2.

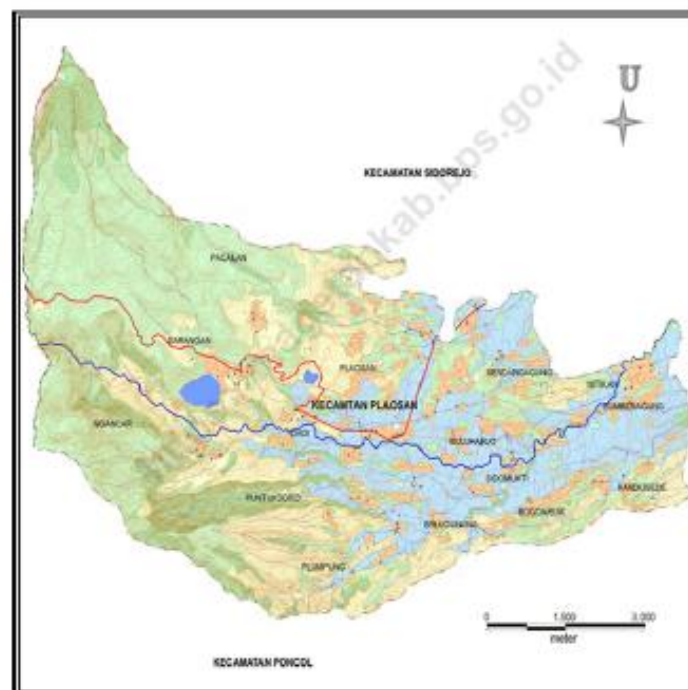


Figure 1. Plaosan District Map

Table 1. Number of Population by Age Group

Age Groups	Gender		Total
	Male	Female	
(1)	(2)	(3)	(4)
0-14	4.989	4.688	9.677
15-64	17.632	17.462	35.094
65+	2.817	3.147	5.964
	25.438	25.297	50.735

(https://magetankab.bps.go.id/, 2021)

Table 2. Characteristics of Population and Gender

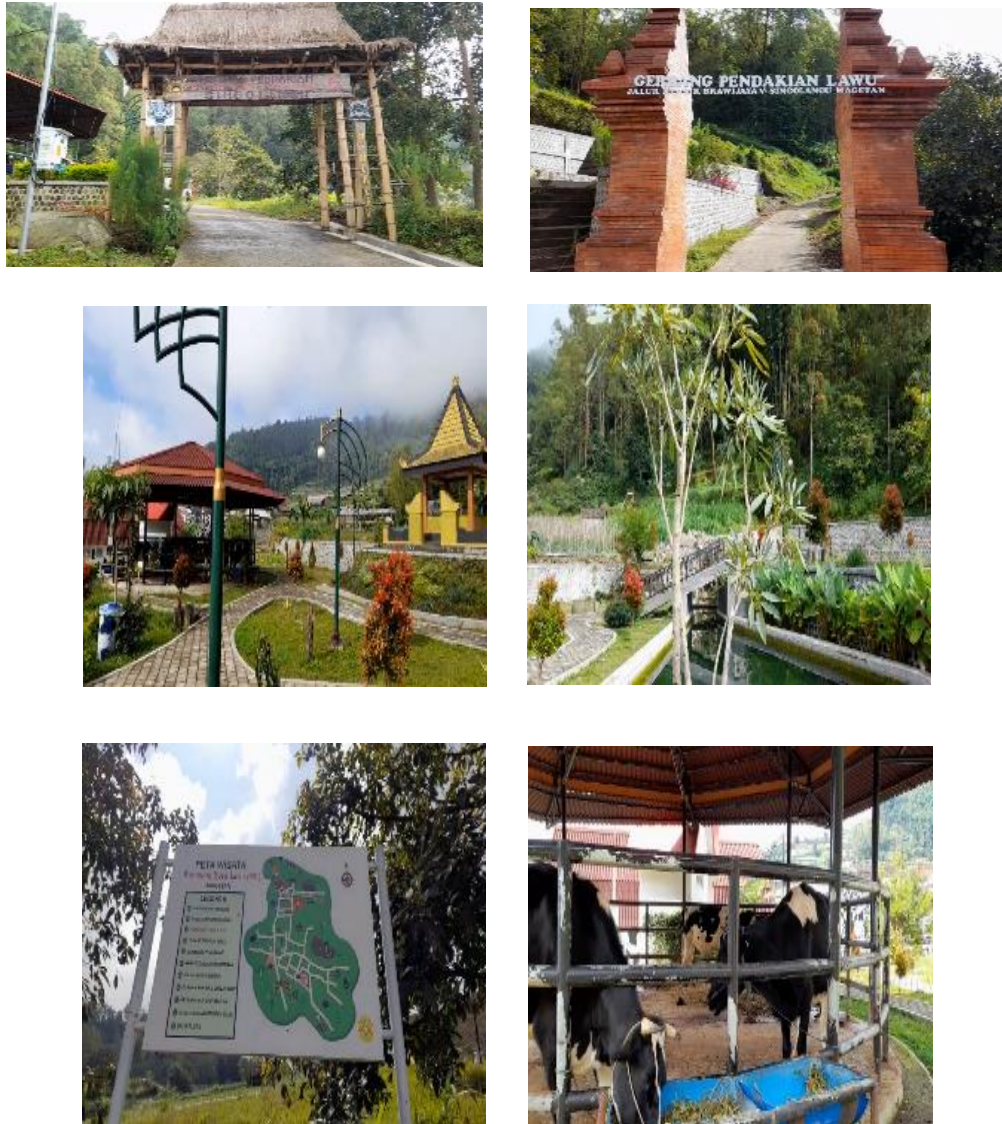
	Village	Family	Population		Total
			Male	Female	
	(1)	(2)	(3)	(4)	(5)
1	Ngancar	735	1.146	1.141	2.287
2	Plumpung	1.003	1.753	1.725	3.478
3	Puntukdoro	1.257	2.165	2.114	4.279
4	Bulugunung	1.569	2.439	2.397	4.836
5	Bogoarum	780	1.279	1.345	2.624
6	Randugede	726	1.119	1.118	2.237
7	Sumberagung	787	1.198	1.273	2.471
8	Nitikan	542	897	846	1.743
9	Sidomukti	955	1.575	1.555	3.130
10	Buluharjo	1.278	2.046	2.045	4.091
11	Plaosan	1.889	2.950	2.994	5.944
12	Dadi	1.661	2.499	2.472	4.971
13	Sarangan	1.205	1.744	1.844	3.588
14	Pacalan	1.578	2.542	2.463	5.005
15	Sendangagung	575	930	899	1.829
		16.540	26.282	26.231	52.513

(https://magetankab.bps.go.id/, 2021)

Table 3. Number of Residents of Sarangan Village –
Education - Plaosan Kecamatan District

Not School yet	Not Finished Elementa ry School	Element ary School	Junior High school	Senior High school	Graduat eDiplom a	Graduat e	Post Grauate
520	327	1238	625	719	45	110	4

(Source: BPS Magetan Regency 2021)



(Source: Setiyawan, 2023)

Figure 2. Tourist facilities and infrastructure in the village of Kampung Susu Lawu

From the results of interviews with 7 informants conducted in July - August 2022, it can be found that: "For now there is no certainty about opening and closing because there is still no management" and "there are no tour tickets yet". The problem is there is no manager for the tour yet". "Yes the village itself wants to build it soon but it is still constrained by costs, still waiting, but for the land, all the land beside it will be made to tour again "Then I don't know bro, but maybe they need refreshing to to nature and see the cows, after that it's still a village atmosphere, bro, so there are no tall buildings and there are also milk products that are sold at the same time. tourists who enter, so have their own opinion. After that, how many residents are raising cattle. That's if the residents raise chickens but they don't make much profit because of the transportation, now they are livestock and the results can be sent to the PKK or sold directly and that's more profitable, bro, because this tour can be a village/BUMDes development which can indeed become an icon and help the village".

From the results of observation and documentation it can be formulated that the facilities available are: parking area, prayer room, toilets, gazebo and seats (provided several gazebos and

comfortable seats so that visitors feel comfortable when gathering with friends or family), photo spots (providing several a choice of spots for visitors to take interesting and instagramable photos coupled with views of typical mountain trees and soothing farmland), handicrafts (providing a shop for souvenirs processed typical of Kampung Susu Lawu), floor plans and direction signs.

The obstacles faced in tourism development are in the management or development of Kampung Susu Lawu tourism, namely the difficulty of land permits granted by the local government to managers. The management has not dared to build new facilities at tourist attractions. The second is when the pandemic hit, tourism was very quiet, there were only one or two visitors who stopped by, causing the tourist attractions to not be managed properly and during construction it was not 100%. So Kampung Susu Lawu has not dared to promote it more broadly.

Discussions

Attractions

Kampung Susu Lawu actually has potential attractions that can be enjoyed by tourists which include nature, culture, and man-made. Kampung Susu Lawu is located on the slopes of Mount Lawu, to be precise in Singolangu Hamlet, Sarangan Village, Plaosan District, Magetan Regency, East Java. The people of Singolangu Village are mostly vegetable farmers and dairy farmers. Having beautiful and cool mountain nature, Kampung Susu Lawu is located approximately 1 km from the legendary lake, Telaga Sarangan. It has one of the hiking trails of Mount Lawu which had been vacuumed for years.

Amenities

Facilities and infrastructure in Kampung Susu Lawu are buildings built commercially such as hotels, homestays, resorts and others. However, in Kampung Susu Lawu there is no accommodation such as a hotel or restaurant, either from investors or local parties. Except for selling processed cow's milk.

Accessibility

Access to the tourist destination of Kampung Susu Lawu includes transportation, communication, telephone network, and internet network. Access is in the form of a road to Kampung Susu Lawu via a fairly large road, 30 Km from Madiun - East Java. Judging from the road infrastructure, road access is very good with 4-wheeled vehicles and buses. To access communication, the people of Kampung Susu Lawu, Dusun Singolangu use mobile phones.

Ancillary

Management agencies, tourist information, travel agents and stakeholders play a role in tourism. In Kampung Susu Lawu there is already a tourism management agency, even though tourism in this tourist destination has not yet developed optimally. However, it still requires good management from the stakeholders in Kampung Susu Lawu.

The obstacle of Kampung Susu Lawu as a tourist destination in developing tourist destinations from the 4A aspect is that Kampung Susu Lawu has not optimally developed these four aspects. The first is seen from its attractiveness even though Kampung Susu Lawu has potential for attraction; natural, cultural and man-made tourism. Furthermore, in terms of good accessibility, there are road access problems to Kampung Susu Lawu for four-wheeled vehicles, except for adequate parking space for 4-wheeled vehicles. As for amenities, there are no accommodations such as hotels, homestays, cottages, or restaurants standing in this village. There are only residential areas in Kampung Susu Lawu and Hamlet Singolangu. Aspects of ancillary services such as tourist information centers (TIC), tour guide services, or other tourism agencies do not yet exist. This means that the 4A aspect has not been implemented properly and tourism management itself has not run optimally.

Conclusion

Kampung Susu Lawu as a tourist destination is currently categorized as potential with the following characteristics: 1) has natural and cultural attractions, 2) has good road infrastructure, 3) has facilities and infrastructure to support tourism, and 4) has no facilities namely separate accommodation for tourists. The development of tourism facilities and infrastructure is still limited. Tourists who visit are still small. Public awareness of tourism potential has not yet developed. The community should understand the tourism potential, including its development. The community should manage the tourism business effectively independently, and is able to carry out promotion and marketing independently and develop a network of cooperation with outsiders. All of this can be done if all interested parties by involving investors who can work together to carry out a movement to synergize tourism potential, with package tours: Telaga Sarangan, Mojosemi Park, and Green Lawu Forest, and are able to realize a combination of exotic camping packages, agro tourism and educational tourism as well as digital tourism.

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Multi-competency development: strategy to strengthen the resilience of human capital from unpredictable global disruption

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Abstract: This research was conducted with the aim of building a new competency development strategy for workers so that they have multi-competence capabilities in an effort to survive in a situation of uncertainty. The object of this research is the four Wyndham hotel chains in Bali, Indonesia where an in-depth exploration is carried out on the Human Capital Aspect which includes Threshold Characteristics and Differentiation. Threshold Characteristics are essential characteristics consisting of Knowledge and Skills, while Differentiation characteristics which are superior distinguishing aspects consist of Self-Concept, Motives, and Treats. Using a mixed method research with an exploratory sequential approach, the researchers carried out three stages of research from qualitative research, and quantitative research to validating research results through Focus Group Discussions with policymakers from the four Wyndham hotel chains in Bali involved. Through all the stages of the research, the researchers developed a model of Multi-Competency Development, that is in accordance with the characteristics of Wyndham hotel employees. The model, which is named the Sundae Multi-Competency Development, consists of 6 steps including (1) Identification of Competency Trends; (2) Competency Recommendations; (3) Internal Intent Analysis; (4) Training and Development; (5) Certification; and (7) Own Multi-Competency. The research results in the recommendation of relevant new competencies to be developed in the Wyndham hotel chain in Bali, including Teaching, Marketing, and Cooking competencies.

Keywords: human capital, multi-competency, development, strategy, labor, disruption.

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Introduction

The devastating disruption caused by Covid-19 pandemic has globally shaken almost all businesses, creating a complex and challenging environment for human capital, forcing management to find ingenious solutions to ensure the continuity of their job to cope with the sudden and unpredictable crisis. Since its emergence in December 2019, it has been very clear that the threat posed by Covid-19 to public health would also be harmful to the world of work. Workplace closures and other measures necessary to curb the spread of the virus have wreaked havoc on enterprises and workforce across the world (ILO Research Department, 2021). The exposure of Covid-19 pandemic followed by lockdown policy taken by many countries has created massive disruption and had major economic consequences. Uncertainty situation raised up adding the complexity of the crisis and it has direct impacts on human livelihood due to premature deaths, reduction on job quality and reduction in productivity due to workplace absenteeism. The impact took place so quickly in almost every country in the world, including Indonesia (Gössling, 2020). Prior to 2020, Indonesia was experiencing steady growth of the tourism industry, spurred by increasing numbers of foreign visitors. However, the outbreak of Covid-19 pandemic has shown how precarious it was for an economy to be so heavily geared towards international tourism. Looking at data released by Indonesia Central Bureau of Statistics (BPS) the Indonesia

Quarterly Economic Growth 2021, based on business sector there are two economic sectors contracted the most during the first quarter of 2021 year-on-year: transportation and warehouse (-13.12%), and accommodation and food services (-7.26%). This difficult economic situation is still happening even after 1 year since the President of Indonesia announced that Covid-19 had hit the country.

The economic downturn caused by the coronavirus crisis in Indonesia has made Bali, the most favorite islands for tourists, slumped so badly. One of the hospitality industries that is growing very rapidly on the island of Bali is the hotel industry. Hotel is the business of providing accommodation in the form of rooms in a building, which can be supplemented with food and drink services, entertainment activities and/or other facilities on a daily basis with the aim of making a profit (Kemenparekraf, 2013). The situation has cost the jobs loss of at least 75,000 workers who had been either laid off or forced to take unpaid leave. Even those who could keep their jobs have to survive on a severe pay cut off up to 75 per cent. Besides that, there are informal daily workers, freelance drivers and tour guides, whose income has been reduced to zero since the pandemic began (BPS Provinsi Bali, 2020). The Covid-19 pandemic is not the only disruption experienced by tourism workers in Bali. Bali has experienced major terrorist attacks in October 2002 and in the same month of 2005, which disrupted the tourism businesses, livelihoods, and rise of unemployment faced by the Balinese people. In the two consecutive years following the bombing, tourist visits fell more than 40 percent; more than 200.000 tourism-related jobs were lost in Bali, and 2.7 million jobs nationwide (APEC Secretariat, 2017). Bali also experienced disruption caused by natural disasters that occurred in 2017. Mount Agung, a volcano on the island erupted five times in late November 2017, causing thousands to evacuate, disrupting air travel and causing environmental damage (Rahmawati, 2019). The losses within the tourism sector have reached USD 663 million. During the same period, losses of USD 147 million due to bad credits in Karangasem Regency, considered to be as a direct result of loss of jobs due to the downturn in tourism (ADRA, 2017). However, the heaviest impact felt by tourism workers was felt in the current Covid-19 pandemic.

The uncertainty of the recovery process requires the resilience of workers to be able to maintain their economy in a very difficult situation that might last for quite a long time. On the other hand, the hotel industry has tightened operational costs by minimising the number of employees and at the same time requiring human capital with multi-competency to continue operating during the Covid-19 pandemic (Shabrina, 2020). However, developing hotel employees to have multiple competencies cannot be undertaken in a short time, it needs proper planning, from the beginning of recruitment, orientation, training, and evaluation to having the employee own these abilities; therefore, the panic can be avoided if global disruption reoccurs in the future (Karen, 2000).

The idea of the need for someone to have various competencies has actually been written in old literature in Bali. Researchers found a very interesting source that the concept of equipping oneself with various kinds of competencies is also written in Balinese literature. The masterpiece of literature is known as *Geguritan Selampah Laku* which narrates the life journey of the author - a poor priest named Ida Pedanda Made Sidemen who was in the struggle to make his beloved wife happy in a situation of deprivation. This story was narrated with emotion by Ida Padanda Made Sidemen. His determination was unanimous to make poverty as a "tapa", that he mentioned as "Mayasa Lacur". He also addressed this determination with the concept of "Cultivating One's Own Land" in Balinese written as "Nandurin Karañg Awak" through various village skills written as "Guna Dusun" (Simpun, 2021). Multi-competency practices can also be seen in modern martial arts known as Mixed Martial Arts (MMA). MMA is an amalgamation of all martial disciplines, harmoniously combined together to form a seamless, unified system. Some say it is the purest form of unarmed combat because it takes the greatest elements of various martial arts and mixes them together (Kirk, 2015). A multi-competence model in language learning introduced by Vivian Cook, a British applied linguist proposed a multi-competence model in the early 1990s developed from Universal Grammar theories. According to Cook, multi competence relates to competence in two or more languages, which traditionally are understood as first and second or other languages. So multi-competence is now usually said to be the knowledge of more than one language in the same mind (Doyle, 2015). David Epstein (2020) in his book entitled *Range*,

describes people who have various competencies as Generalists and people with single-competency as Specialists. Generalists often find their path late, and they juggle many interests rather than focusing on one. They are also more creative, more agile, and able to make connections that their more-specialised peers can't see. The specialists tend to be so attached to certain types of specialized procedures; they use them over and over, even when they're not indicated, and the rates of complications go up. Those literatures above are in line with the general situation that currently occurs, where there are so many efforts to save costs on human capital to survive the impact of a prolonged global disruption. To become more agile, many organisations are now considering building cross-functional style teams. Often there can be a push back to building these cross-functional teams, especially from specialists who have built their career about being an expert (Visser, 2019).

With the background of the given phenomenon, the researchers intend to explore the importance of an employee having more than one competency to maintain their source of income and economic resilience in a global disruption situation, such as the Covid-19 pandemic. These additional competencies will present opportunities, although in general the results may not be as great as the main competencies, but will be very helpful in dealing with disruptive situations that may reoccur in the future (Crews & Russ, 2020). Beginning with mapping out various types of competencies that have been proven to be successfully applied by tourism workers, the researchers are then involved in developing a strategy that was appropriate to the characteristics of the workers in the hotel where this research was conducted. The researchers aimed to identify a strategy that can be applied by Management of Wyndham hotel chain in Bali to develop human capital that has multi-competency to economically survive in a global disruptive situation.

Methodology

This research has been conducted at the four Wyndham chain hotels in Bali, with the central research taking place at one of those hotels namely Wyndham Garden Kuta Beach Bali. To explore the information from the other three hotels, the researchers used online media conferences, as well as making weekly visits to each property. Wyndham chain hotel has weekly operational meetings every Thursday; therefore, the researchers consider it necessary to make a visit once a week to be precise on Fridays to complete and validate the updated information obtained in the previous meeting. The locations of each hotel of Wyndham Hotel Group in Bali are as follows: (1) Ramada by Wyndham Bali Sunset Road Kuta, at Jalan Sunset Road No.9, Kuta, Badung, Bali. (2) Wyndham Garden Kuta Beach Bali, at Jalan Pantai Kuta No 99X, Kuta Beach, Bali. (3) Wyndham Tamansari Jivva, at Jalan Subak Leping No.16, Takmung, Klungkung, Bali and (4) Hotel Wyndham Dreamland Resort Bali, at Jalan Pantai Dreamland, Pecatu, South Kuta, Bali.

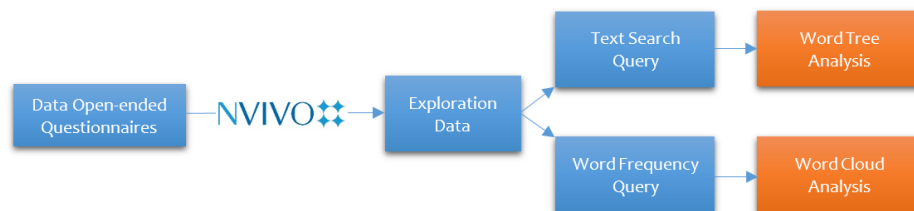
The researchers conducted mixed methods research, by combining qualitative and quantitative methods to collect data, integrating the two forms of data using distinct designs that may involve philosophical assumptions and theoretical frameworks (Creswell, 2010). Furthermore, Exploratory Sequential design is used in this research, which involves first collecting qualitative exploratory data, analysing the information, and using the findings to develop a psychometric instrument well adapted to the sample under study (Sugiyono, 2014). Researchers designed an Exploratory Sequential approach to formulate guidance to proceed this research, as follows: (a) research stage I – qualitative method; (b) research stage II – quantitative method; and (c) research stage III – research validation.

In the research stage I, the researchers distributed open-ended questionnaires to respondents from member of 9 Hospitality Professional Association in Bali, inclusive: Indonesia General Manager Association (IHGMA) Bali, Indonesia Food and Beverage Association (IFBEC) Bali, Indonesia Chef Association (ICA) Bali, Indonesia Housekeeping Association (IHKA) Bali, Hotel Front Liner Association (HFLA), Bali Chief Engineer Association (ACE), Bali Sales Community (Bascomm), Hotel Finance Professionals Association (HFPA) Bali and Human Resources Association (HRA) Bali. At this research stage I, researchers sought feedback from the respondents regarding the following main points: (a) Type of additional or switch-job taken by respondents to cover their income reduction and perform continuous resiliency facing the challenging situation, affected by pandemic Covid-19. (b) To find out the types of competencies

possessed by respondents, in carrying out those additional jobs or switch-jobs that they have chosen.

Beside distributing questionnaires, the researchers also held a semi-structured interview involving selected committee members of the professional associations mentioned above to strengthen the respondent's feedback, feeling and opinion to the multi-competency practice during Covid-19 pandemic.

In order to interpret the results of open-ended questionnaires in the early stages of this research, researchers used Nvivo 12 Plus software. Nvivo 12 Plus is a software program used for qualitative and mixed-methods research. Specifically, it is used for the analysis of unstructured text, audio, video, and image data, including (but not limited to) interviews, focus groups, surveys, social media, and journal articles (Amalia, 2020). The data collected is then processed with Nvivo 12 Plus software to obtain the relationships of each additional competence and the hotel departments represented by each respondent (Bandur, 2019). There are two features in Nvivo 12 Plus that have been used to explore the correlation of each word taken from respondent's feedback, inclusive Text Search Query and Word Frequency Query. The output of Text Search Query is Word Tree Analysis, while the Word Frequency Query produce Word Cloud Analysis. Figure 1 shows the flow of data exploration used by researchers using Nvivo 12 Plus software.



(Source: Nvivo 12 Plus Software in Bandur, 2019)

Figure 1. The Flow of Data Exploration

The result of this first stage of research exploration will be then used as research instrument for research stage II, which is the quantitative part of the research.

At this second stage, the researchers formulate a closed-end questionnaire using Likert Scale based on a research instrument constructed at the first stage of research, combined with Types of Competency Characteristic theory. Likert Scale is a rating system used in questionnaires that is designed to measure people's attitudes, opinions, or perceptions. Likert scale is named for American social scientist Rensis Likert, who devised the approach in 1932 (James, 2011). The questionnaire is then distributed to all employees of four Wyndham Hotel Chain in Bali. Before distributing the questionnaires to all Wyndham employees, the researchers conducted validation and reliability tests on the questionnaire that had been prepared by involving several employees as sample respondents. This validity test was carried out using SPSS software. SPSS is short for Statistical Package for the Social Sciences, and it is used by various kinds of researchers for complex statistical data analysis. The SPSS software package was created for the management and statistical analysis of social science data (Basuki, 2014).

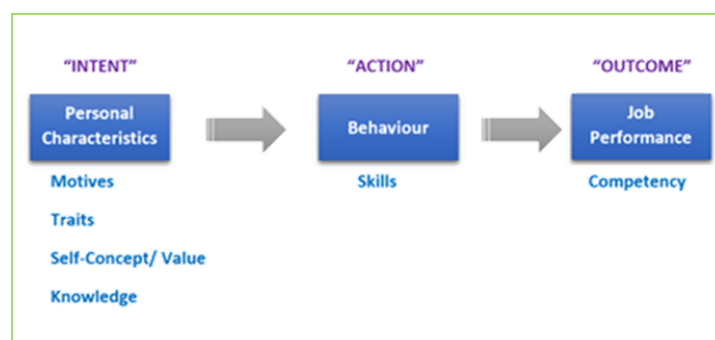
At the third stage, the researchers hosted and participated in a Focus Group Discussion involving the Executive Committee (Excomm) and Human Resources Manager of 4 Wyndham chain hotels in Bali to formulate a multi-competency development model with research findings at stage I and II. The Excomm of each Wyndham hotel consist of key decision maker of the hotel, include General Manager (GM), Executive Assistant Manager (EAM), and Financial Controller (FC), while Human Resources Manager (HRM) will be the executor of decision made by Excomm, specifically related to Human Capital. All findings discussed at this stage, validate the correlation found at both previous research stages and formulate the model of Multi-Competency Development that is suitable to the characteristic of Wyndham employees.

Determining sampling from a population of 9 different associations at the qualitative stage has given this research quite a challenge, due to the large number of population and their location. Therefore, researchers used Snowball sampling method to reach the required population

at the research stage I. Snowball sampling is a sampling method used by researchers to generate a pool of participants for a research study through referrals made by individuals who share a particular characteristic of research interest with the target population (Sugiyono, 2014). It is also referred to as chain sampling or chain referral sampling (Sugiyono, 2016). In the research stage II, researchers used total population sampling involving 184 Wyndham employees. Total population sampling is a type of purposive sampling technique to examine the entire population that have a particular set of characteristics (Garrett, 2018). The important thing in this research besides finding facts, is understanding how the process of a competency is built in a worker. This will lead researchers to understand the characteristics of Wyndham Chain Hotel employees in Bali, associated with the competency trend carried out by tourism workers on a wider scale. Referring to the theory of competence in the book entitled "Competency Management: A Practitioner's Guide", it is stated that competencies are underlying characteristics of people that indicate ways of behaving or thinking, which generalise across a wide range of situations and endure for long periods of time. There are five types of competency characteristics within this definition that require understanding (Palaniappan, 2003), as follows:

1. Knowledge refers to information and learning resting in a person, such as a surgeon's knowledge of the human anatomy.
2. Skill refers to a person's ability to perform a certain task, such as a surgeon's skill to perform a surgery.
3. Self-concept and values refer to a person's attitudes, values, or self-image. An example is self-confidence, a person's belief that he or she can be successful in a given situation, such as a surgeon's self confidence in carrying out a complex surgery.
4. Traits refer to the physical characteristics and consistent responses to situations or information. Good eyesight is a necessary trait for surgeons, as is self-control, the ability to remain calm under stress.
5. Motives refer to emotions, desires, physiological needs, or similar impulses that prompt action. For example, surgeons with high interpersonal orientation take personal responsibility for working well with other members of the operating team.

Those five types of competency characteristics that will be used as theoretical based in this study are fallen into two categorizations including (1) Threshold competencies that are essential characteristics such as knowledge and skills that one needs to meet the minimum required levels in a job; however, they do not differentiate superior from average performers, (2) Differentiating competencies that refer to factors such as motives, traits, self-concept, and values that distinguish superior from average performers. Figure 2 shows the process of forming a competency in a person.



(Source: Competence at Work by Spencer & Spencer, 2006)

Figure 2. Process of Competency development

Within the scope of Type Characteristics of Competency, beginning with understanding personal characteristic, followed by behaviour (action of skill) and the proven of job performance, it can be concluded that the process of a person obtaining a competency goes through 3 main phases which include: 1. Intent, phase that involves the Personal Characteristics which emphasize more on the hidden factor which consists of Motives, Traits, Self-Concept and includes the visible

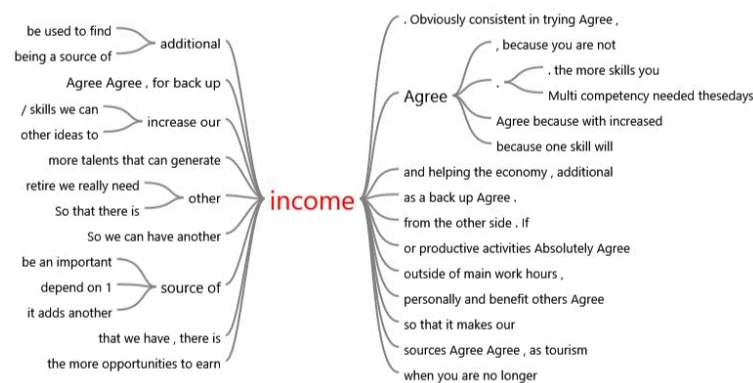
factor, Knowledge; 2. Action, this is phase of forming behaviours based on Skills possessed; and, 3. Outcomes, the final phase of perform the Competency.

Results and Discussion

Results

The distribution of open-ended questionnaires to 9 tourism professional associations in Bali reached 117 respondents 74.4% male, 24.8% female, and 0.9% chose not to answer. Based on the working age, the respondents consist of 65% aged between 18-30 years, 29.1% aged between 31-45 years, and 6% aged 46-65 years with job position manager is 82%, rank-file staff is 11%, and supervisor level at 7%. Since Pandemic Covid-19 occurs, tourism workers are having 3 options to keep their economic resilience, whether having an Additional, Switching, or Remain stay on their current job. The questionnaire's response for those options presented 52% respondents decided to have an additional job, 28% respondents Remain on their current job, and 21% decided to switch their job.

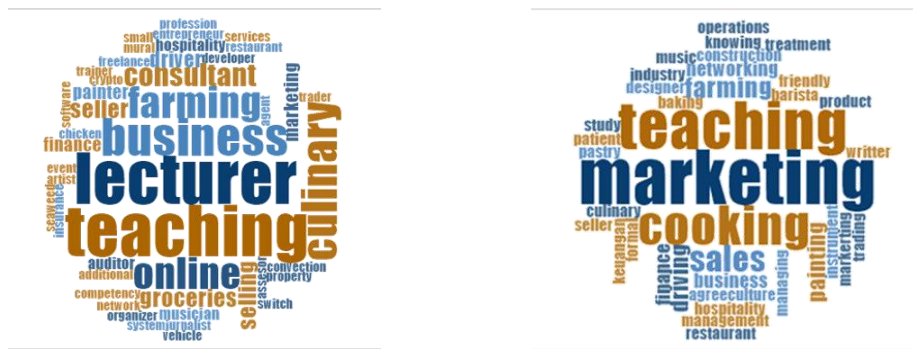
Text Search Queries feature in Nvivo 12 Plus processing the data into Word Tree illustration, allowing researchers to search for words or phrases in the research data collection, explore the use, context and meaning of the words. The exploration helps researchers to see if an idea or topic is prevalent in all data collected from respondents, particularly in the early stages of the research. Figure 3 shows the result of the Word Tree feature in Nvivo 12 Plus that helps researchers to interpret the correlations of words related to the research topic.



(Source: Nvivo 12 Plus Software Data Processing, 2022)

Figure 3. Word Tree of the Word "Income"

From the survey data entered, the word "Income" is the word that appears most often and is related to the reason why the respondent chooses to do additional work or change of professions. Referring to the above results, it can be concluded that from an economic point of view, most of the respondents agreed on the importance of multi-competency to be developed, as an additional income, backup plan, and open- up more opportunities in current challenging situations. Furthermore, to visualise the mixed responses given by respondents and unstructured information in ways that enable the identification of themes and patterns, the further result of feature Word Frequency Query in Nvivo processing data into World Cloud Analysis as shown at Figure 4.



(Source: Nvivo 12 Plus Software Data Processing, 2022)

Figure 4. Word Cloud Analysis

Figure 4 shows that words related to additional and switch-jobs that respondents have taken since Pandemic Covid-19 occur in Bali is dominated by Lecturer, Teaching, Business, Culinary, Farming, Online and Consulting. While the type of competency that is required to perform and related to those additional and switch-jobs decided by respondents are Marketing, Teaching, and Cooking. As a reinforcement of the survey results using an open-ended questionnaire, the researchers also conducted semi-constructed interviews to representatives of tourism associations who have proven to be successful in maintaining their economy by developing their own new skills during the Covid-19 pandemic. The result of interviews conducted by researchers are similar through the distribution of open-ended questionnaires that have been proceed through Nvivo 12 Plus, where the tendency for additional work or professional transitions to be taken leads to becoming a teacher (8.47%), having culinary business (5.51%), having online business (4.66%), and being farmers (4.66%).

Discussion

Referring to the result of research stage I, the researchers drew several conclusions by interpreting the interrelated relationships between the feedback from 117 respondents to the questionnaire and interviews representatives who are hospitality professional associations. This stage is the most basic level of the research, with primary focus is to initially explore a phenomenon, used to generalise qualitative findings to different samples (Creswell, 2010). There is a fact that economic suffering is the main trigger for respondents to choose to do additional job or switch their professions. Types of additional job or switching professions that are more often carried out by respondents including lecturer or teacher, culinary business, farmer, and online business. In line with those job types, the most frequent competencies that respondents needed are teaching, marketing, cooking, and farming.

The research stage II began with the preparation of a closed-ended questionnaire with a Likert scale that has passed the validity and reliability test before being distributed to all employees of the Wyndham Hotel Group in Bali. The validity and reliability tests were carried out using SPSS on a closed-ended questionnaire to confirm that the prepared questions could be fully understood by respondents without any bias. So that the results of the analysis of the respondent questionnaire can produce conclusions that have good quality. The findings in this research stage 2 have provided an illustration of how the Hidden Characteristic of Competency plays a role in a group of people who in this case are employees of the Wyndham Hotel Group in Bali in understanding their potential for competency development. The number of employees who took part in the survey was 169 out of 184 total employees who are still working at the four Wyndham hotel chain in Bali. With this, the response obtained by researchers in this second phase of research is 92% of the total population. All departments in the hotel responded to the distributed questionnaire. The most respondents are from operational departments such as Housekeeping (17%), Food and Beverage service (16%), and Food and Beverage Product (14%) followed by other departments.

The responses obtained from 169 Wyndham employees to the four types of competencies offered by researchers, which are the results of the stage 1 survey are: a. Teaching received 34.1% of the result, with 79 votes. b. Marketing received 33.6% of the result, with 78 votes. c. Cooking received 28% of the result, with 65 votes. d. Farming was the least interested 4.3%, with only 10 votes in total.

Further findings from the respondent questionnaire are related to Intent's Factor which includes Motives, Traits, and Self-Concept/ Value, where each part has 5 questions with a Likert Scale. Because the data received are responses to questions using a Likert scale, the researchers conducted data processing to obtain the respondent's level of agreement with each question posed. The data processed produce Interpretation Score as shown in one of sample Table 1.

Table 1. Interpretation Score of Motives Indicator

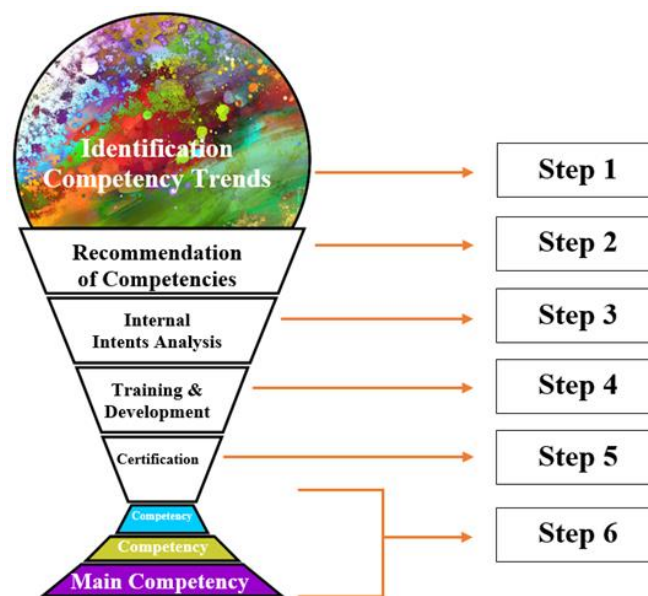
Questionnaires	Description	Likert Score (Pa)	Respondent (T)	(T x Pa)	Interpretation Score		
					Max (Y)	Min (X)	
1). Knowing the motives or reasons from self-within to get new competency other than the competency that have already possessed at this time is important in determining the type of additional competency desired.	Strongly disagree	1	0	0	845	169	
	Not agree	2	3	6			
	Neutral	3	12	36			
	Agree	4	73	292			
	Strongly agree	5	81	405			
		169	739	87%			
2). Fear of economic pressure is the reason someone needs additional competency in addition to the competency that have already possessed	Strongly disagree	1	3	3	845	169	
	Not agree	2	0	0			
	Neutral	3	12	36			
	Agree	4	66	264			
	Strongly agree	5	88	440			
		169	743	88%			
3). Experience undergoing global disruption (such as the Covid-19 pandemic) can be a reason to add new competency in addition to the competency that have already possessed.	Strongly disagree	1	3	3	845	169	
	Not agree	2	3	6			
	Neutral	3	6	18			
	Agree	4	69	276			
	Strongly agree	5	88	440			
		169	743	88%			
4). The influence of other people's success or individual competition can be a motive to add new competency in addition to the competency that have already possessed.	Strongly disagree	1	3	3	845	169	
	Not agree	2	6	12			
	Neutral	3	15	45			
	Agree	4	96	384			
	Strongly agree	5	49	245			
		169	689	82%			
5). Awareness of the need for a backup plan, can be the rationale for someone intending to add competency in addition to the competency that have already possessed.	Strongly disagree	1	0	0	845	169	
	Not agree	2	3	6			
	Neutral	3	15	45			
	Agree	4	81	324			
	Strongly agree	5	70	350			
		169	725	86%			
Average Interpretation:					86%		

The responses obtained from each Intent factor are processed into score interpretation as in the example of Table 1 summarised by researchers which resulted in the following findings: a. Factor Intents questionnaire, that involves the hidden Personal Characteristics related to the reasons that motivate someone to want to have additional competence, responded with a high level of interpretation almost close to the maximum tendency limit which is formulated in the Likert Scale, as follows: a. Motive indicators, overall questions received 86% interpretation score. b. Trait indicator questions received 82% interpretation score. c. Self-Concept/ Value indicator questions received an 86% interpretation score.

This illustrates that the majority of respondents from 169 Wyndham's employees tend to agree on the importance of Motives, Traits, and Self-Concept/Values in a person as a motivating factor to choose and add new competencies for themselves. The Knowledge questionnaire, which is also part of the Intents indicators, produces results that become important inputs for the development of Multi-Competency at Wyndham, including: a. The majority of respondents tend to agree that the process of learning new competency knowledge should be provided by a combination of expertise from within Wyndham and also from outside, this statement has an Interpretation score of 83%. b. The majority of respondents with an Interpretation score of 82% tend to agree on the need for job exchanges in the process of forming new competencies to be mastered. c. The majority of respondents with an Interpretation score of 87% tend to agree to receive official certification from a credible institution for the new competencies that will be mastered. d. The three conclusions from the research findings in stage 2, were combined with the conclusions in research stage 1 and then became an important discussion material in the

Focus Group Discussion which was attended by policy makers at the four Wyndham Hotel Groups in Bali.

In the research stage III, an effective competency development cannot be done by simply adding certain knowledge to an employee. It is necessary to have an understanding of the needs and how to apply these competencies in accordance with the characteristics of employees in the organization. The findings in the research stages I and II cannot be decided immediately as a strategy that can be immediately implemented. Therefore, the in-depth discussion carried out in the FGD as the research stage 3, the researchers together with the Wyndham executive committee processed the findings, constructed together to produce a common understanding of the research. The researchers and executive committee of Wyndham, then summarized those research processes into a simpler and easy-to-understand interrelated pattern in the form of a model as presented in Figure 5. This model is shaped like a popular ice cream-based dessert called Sundae that inspire the researcher to give the name of this model "Sundae Multi-Competency Development".



(Source: Output Research Stage III)

Figure 5. Sundae Multi-Competency Development Model

Sundae Multi-Competency Development model contains 6 steps which are the essence of the results of this study. The explanation of each of these steps is as follows.

Step 1 – Identification of Competency Trends: It was done by Conducting competency surveys that are trends in the work industry within a certain period of time. In this case, the researchers used the time limitation from when the Covid-19 pandemic was officially announced in Indonesia until the time the survey was carried out. The survey targets are members of the tourism professional associations representing each department in the hotel.

Step 2 – Recommendation of Competencies: Analysing the survey results was done by determining the types of competencies that are trending in the work industry. The determination of the types of competencies is based on the highest number chosen by the respondents with a limit of 3 to 5 at most, or according to the researcher's considerations. These types of competencies become recommendations to all Wyndham employees.

Step 3 – Internal Intents Analysis: It was done by Conducting an internal Wyndham survey regarding the selected new competency type and the reasons that influence the employees' decisions in deciding the selected new competency type: (a) Confirming the types of competencies selected by employees from the recommendations offered, the competencies did not receive a response or only a few were removed from the list. (b) The survey in regard to the reason employees choose new competencies used a closed-ended questionnaire with indicators

from Hidden Characteristics of Competency which includes Motives, Traits, and Self-Concepts/Value. The survey used a Likert Scale analysis to find the level of employee interpretation of the indicators asked.

Step 4 – Training and Development: At this stage, management collected the sources of knowledge needed by employees in the training and development process for the desired new competencies by involving experts from inside and outside the company. Work exchanges were also carried out at this stage to deepen and implement the new competencies being taught.

Step 5 – Certification: This stage is the recognition or acknowledgment of new competencies that have been possessed through certification by involving a credible competency certification institution.

Step 6 – Own Multi-Competency: This stage is the final result of the implementation of the model, where employees have other competencies besides their main competencies.

Conclusions

The researchers are aiming to answer the problem that have been formulated at the earlier of study, where the first purpose is to determine strategies that can be applied by Management of Wyndham hotel chain in Bali to develop human capital that has multi-competency to economically survive in a global dis-ruptive situation. At the same time the research is designed to produce recommendations of relevant multi-competencies that are suitable for the employees of Wyndham hotel chain in Bali, so that they can have economic resilience in various disrupted situations, not only for the benefit of the company but also for themselves outside their work as hotel employees. Through an extensive research process using the Exploratory Sequential Mixed Method approach, research data was carefully processed starting from the qualitative method in stage 1 and continued to the quantitative method at stage 2. Researchers used the Nvivo 12 Plus software analysis tool to interpret the results of research stage I, and in stage II the researcher used to test the validity-reliability of the research instrument and interpreted the results with Likert Scale analysis. By combining the results of the two research stages, followed by Focus Group Dis-cussion together with the Wyndham hotel policy makers, the researchers succeeded in finding answers to the problems that had been formulated at the beginning of the study.

The first question is what strategy can be applied by Management of Wyndham hotel chain in Bali to develop human capital that has multi-competency to economically survive in a global disruptive situa-tion? The research has concluded that there are 6 steps need to be implemented in order to develop a Multi-Competency Human Capital at Wyndham hotel chain in Bali, such as (1) identification of compe-tency trends, (2) recommendation of competencies, (3) internal intents analysis, (4) training and devel-opment, (5) certification, and (6) own multi-competency. These steps are implemented in sequence and form a Strategic Model, namely Sundae Multi-Competency Development. The answer of second ques-tion, what are the relevant multi-competencies to be developed for the employees of Wyndham hotel chain in Bali, so that they can have economic resilience in various disrupted situations, not only for the benefit of the company but specially for themselves outside their work as hotel employees?, found dur-ing the development of Sundae Multi-Competency Model, where researchers putting all findings base on the current pandemic Covid-19 situation faced by the hotel's employee into the model to be analysed. The final result of Sundae Multi-Competency model to all findings in this research, resulting 3 types of new competencies that is relevant to be developed to the employees of Wyndham hotel chain in Bali, they are (1) teaching, (2) marketing, and (3) cooking.

The Sundae Multi-Competency Development Model is designed to be applicable at any disruption situation that may occur and because it is based on real situation, the result produced may vary depending on the characteristics of respondents. This model can really help hotel management, especially human resource department to understand the labour market situation, and at the same time to under-stand the characteristics of their employees, and of course to determine the types of additional compe-tencies that need to be provided. The researchers suggest the Sundae Multi-Competency Development model to be applied at the Wyndham hotel group in Bali, because the development process involves almost all employees of the four hotels, in particular it also involves the characteristics of the employees themselves. Wyndham Management can continue to develop this model and to present more new com-petencies that

will be very beneficial to their employees in the future. The active role of the Human Resources Department will be very efficient by conducting early detection of the interests, talents, and potentials of its hotel employees (Dewi, 2019). On a wider scale, researchers hope that there will be further development from both academics and the Human Resource Department on this Sundae Multi-Competency Development model, so that its application can be carried out in larger and broader companies or institutions for community resilience in the face of global threats of disruption that can happen suddenly in the future.

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