

Determinants of community participation in ecotourism programs in Bali, Indonesia

I Gusti Bagus Rai Utama, I Wayan Ruspindi Junaedi, Ni Putu Dyah Krismawintari

Department of Management, Faculty of Business, Tourism, Education, and Humanity, Dhyana Pura University, Bali, Indonesia

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ABSTRACT

In the case of Indonesia, most of the tourist attractions offered and advertised are protected forests. This research seeks to find a balance between these two interests, so the purpose of this research is actually to determine the determinants of local community involvement in ecotourism development in Bali. This research uses quantitative methods described in the form of descriptive, and factor analysis according to the results of the survey with informants in the ecotourism of West Bali National Park, Buyan Tamblingan, Bali Mangrove, Batur Kintamani, and Lembongan. Eight factors determine community participation in ecotourism programs in Bali, namely: i) the role of leaders and business opportunities, ii) the factor of mindset and industry cooperation, iii) the factor of income, socialization, and commitment, iv) the factor of awareness of nature conservation, v) the factor of optimism to get money and knowledge, vi) the factor of facilities and independence, vii) the factor of training, interest, and participation, and viii) the factor of skills and funding.

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Corresponding Author:

I Gusti Bagus Rai Utama

Department of Management, Faculty of Business, Tourism, Education, and Humanity,

Dhyana Pura University

Padang Luwih Street, Tegaljaya, Dalung, North Kuta, Bali, Indonesia. (80361)

Email: raiutama@undhirabali.ac.id

1. INTRODUCTION

In the case of Indonesia, most of the tourist attractions offered and advertised are national parks or protected forests. Such places have been placed under protection to preserve them. On the other hand, such places are advertised to attract many tourists. In many cases, there is a gap between idealism and reality. It is assumed that good ecotourism management can mediate between these two interests [1]–[4].

Forest destruction in Bali hurts the environment and people's lives. One of the impacts is the loss of natural habitats of various plant and animal species, which leads to reduced biodiversity. Global warming, floods, and landslides are also increasingly common due to the loss of vegetation cover and the loss of the forest's function in absorbing water [5]–[7]. In addition, forest destruction also affects water quality and availability. Forests have an important role in maintaining the sustainability of the water cycle, and with the loss of forests, there is a decrease in the quality and quantity of clean water. Efforts have been made to address forest destruction in Bali, such as implementing forest protection policies, building public awareness of the importance of forest conservation, and developing sustainable agricultural practices [8]. However, greater efforts and collaboration between the government, local communities, and the private sector are still needed to stop further destruction and restore forests that have been damaged [3], [7], [9], [10].

According to the Central Bureau of Statistics, Indonesia's forest area reached 125.82 million hectares in 2020. This figure is unchanged from the previous year. Specifically, 29.58 million hectares of

Indonesia's forests are protected forest areas. Of these, 27.41 million hectares are nature reserves and protected areas. A total of 26.77 million hectares are commercial forests with limited utilization. Permanent commercial forests cover 29.22 million hectares. Convertible commercial forests cover 12.84 million hectares. In the last five years, Indonesia's forest area has experienced a downward trend. The average decrease between 2015 and 2020 was 0.21% [11]–[13].

The factors causing this decline are not well known, and one of the efforts to reduce the decline of protected or conservation forest areas is to utilize protected or conservation forest areas by introducing a management model based on strengthening village communities that support protected forests. If villagers are satisfied with the existence of protected forests, then logically they will tend to take good care of them. One form of protected forest management is the development of ecotourism programs [14]–[17].

However, to ensure the correct direction of ecotourism, some basic principles must be followed. Several principles have been put forward by various researchers, but the most common principle was put forward by The International Ecotourism Society (TIES). Ecotourism is about bringing together biodiversity, culture, and sustainable travel [18]. It ensures that communities are embraced and take part in ecotourism activities [19]. The values of good ecotourism are: i) minimizing impacts, ii) building awareness and appreciation of ecosystems and culture, iii) providing positive opportunities for visitors and hosts, iv) providing direct financial benefits for conservation, and v) providing monetary and empowerment benefits for locals and increasing exposure to rural community hospitality [20]. Based on the ecotourism principles, the term ecotourism includes the following activities, but is not limited to nature walks, diving, wildlife watching, and cultural tourism, with a focus on the conservation and sustainability of the most important aspects of ecotourism in rural areas where biodiversity, climate, protected areas, and cultural heritage are of particular importance [21]–[23].

The main objective of this research is to determine the factors that determine community participation in ecotourism programs in Bali. This research is a continuation of previous research, which was a preliminary study before conducting in-depth observations and surveys regarding the management of ecotourism destinations in five ecotourism destinations in Bali (Figure 1), namely West Bali National Park, Lake Buyan Area, Batur Geopark, Mangrove Bali Denpasar, and Mangrove Lembongan Klungkung. This study aims to determine the management of ecotourism destinations to create local small businesses in five ecotourism destinations, namely West Bali National Park, Lake Buyan Area, Batur Geopark Museum, Mangrove Bali Denpasar, and Mangrove Lembongan Klungkung [24].

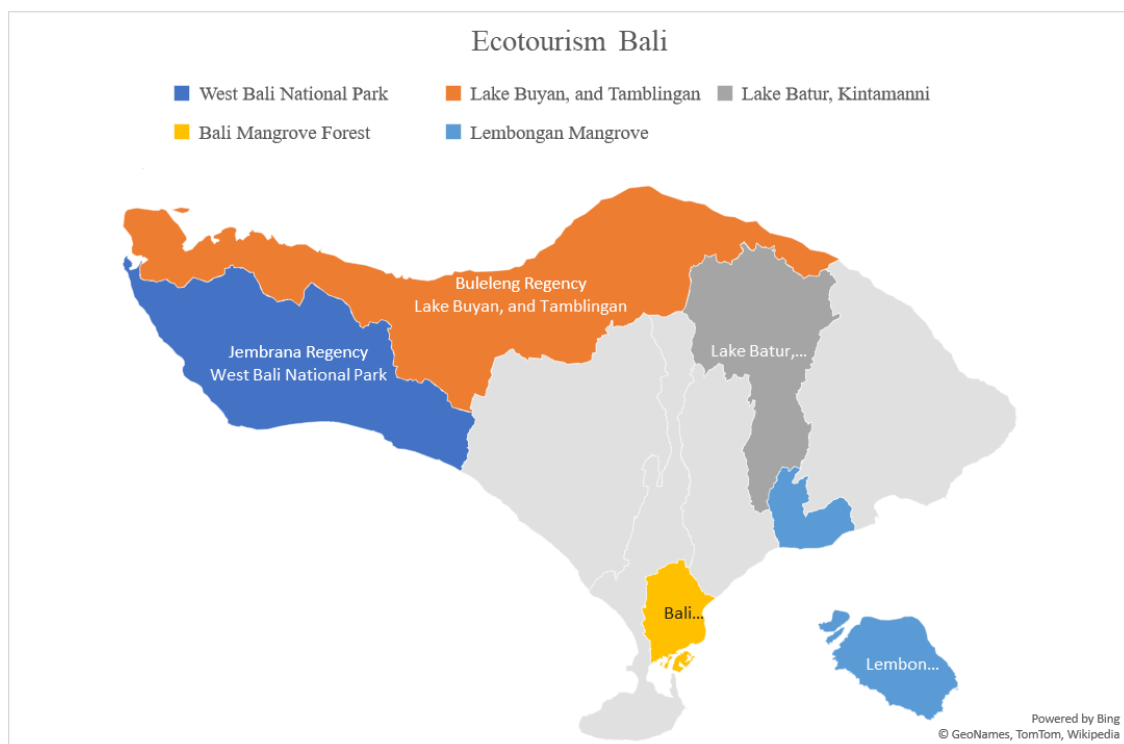


Figure 1. Five ecotourism destinations in Bali, primary data processing using Excel maps [2], [24]

2. RESEARCH METHOD

This research uses a qualitative method that is described in narrative form according to the results of interviews that will be conducted with informants who represent gender equality, local wisdom, and local customary leadership. Visual presentation according to the results of observations on identification based on indicators on the motivation, opportunity, and ability (MOA) concept as an explorative effort to manage ecotourism programs. Focus group discussions (FGD), seminars, socialization, and social realities occur at the research location to confirm the MOA concept [4], [8].

This research was conducted in five ecotourism destinations. The five areas are: i) the area around Lake Buyan-Tamblingan in Buleleng Regency, ii) West Bali National Park, Jembrana, iii) Batur Geopark, Kintamani, Bangli, iv) Mangrove Forest Area, Denpasar City, and v) Lembongan Island Mangrove Forest Area, Nusa Penida, Klungkung [24]. Primary data in this study are the results of the identification of ecotourism typology obtained through observation research and exploratory interviews obtained through interviews with ecotourism managers that have been determined to be carried out in the first year. Other primary data in the form of classification data is ecotourism programs management by confirming the MOA concept by conducting structured interviews [4], [8].

Data collection techniques are observation, interviews, and FGD observation is carried out by observing natural landscapes, types of flora and fauna, existing ecotourism management programs, identifying undeveloped tourism potential, and tourist visits in a participatory way with them at the research location. Then interviews with local governments, tourism offices, village heads, ecotourism managers, community leaders, and tourists were interviewed in depth using the snowball method which emphasizes data mining and interviews to the saturation point according to the research topics compiled in the interview guidelines [4], [8].

The characteristic informants who participated in the survey on factors that determine community participation in ecotourism programs in Bali consisted of 250 people, spread over five research locations, namely 50 village communities bordering the West Bali National Park, 50 local communities in the Buyan and Tamblingan areas, 50 Denpasar city communities directly involved in the Bali Mangrove program, 50 Jungutbatu village and Lembongan communities, and 50 communities in the lower Lake Batur area [25].

The choice of factor analysis as an analytical tool in this study is because this study tries to find the interrelationship of several variables that are independent of each other so that a smaller set of variables can be made from the initial number of variables. For this study, because twenty variables are independent of each other, factor analysis may be able to summarize them into only three new sets of variables so that users of the results of this study can focus their attention on variables that are considered important or even the most important [26], [27].

3. RESULTS AND DISCUSSION

3.1. Community engagement in ecotourism programs in Bali

Results from a survey of community motivation, opportunities, capabilities, and forest utilization efforts. Table 1 depicts community engagement in ecotourism programs in Bali. Table 1 explains that residents are more motivated to participate in ecotourism management when they have the opportunity, and better ecotourism management skills are required for this. If they are motivated, have the opportunity to participate, and are capable of doing so, they will be able to develop small business opportunities associated with ecotourism programs. Motivation to participate in ecotourism management can be increased by providing management opportunities that increase community income through the establishment of small ecotourism-related businesses.

In this context, the government can issue limited management permits to communities with clear rules to ensure that forests managed through ecotourism programs are sustainable. Quintuple helix parties, such as universities, must be involved in educating the community about the importance of preserving the surrounding forest so that small businesses that rely on it can remain sustainable. Village governments and communities surrounding the forest play an important role, so public awareness of forest conservation must be raised on a continuous basis.

The motivation of the community involved in the ecotourism programs, for example: i) motivation to earn money, ii) motivation to gain knowledge about conservation, iii) motivation to be optimistic that the ecotourism programs are beneficial to the community, iv) idealism about the importance of conservation, v) local community independence, vi) motivation from the government and community leaders, vii) promising income for the community, viii) local community commitment, and ix) local community concern for outside interference.

The opportunities expected by local communities with the ecotourism programs are opportunities to take advantage of the existing natural beauty and opportunities for tourists who have excellent potential as

opportunities for ecotourism management. However, the availability of facilities, increased public awareness, complete ecotourism education, and infrastructure availability still require the involvement of other parties such as the government and third parties who are expected to participate in ecotourism programs in their area.

A strong program is the involvement of local communities to improve ecotourism management capacity. However, community weaknesses that require greater participation in ecotourism programs include the availability of budget resources, skilled staff or support, local government support, leaders who can manage and motivate ecotourism programs, support from youth and women, and the need to work with tourism service providers such as travel agents to attract tourists to ecotourism. The business opportunities that arise from community involvement in ecotourism management depend on the potential of the area and the type of ecotourism itself. In Bali's ecotourism management program, there are business opportunities in trekking tours, forest products, intercropping, and handicrafts.

Table 1. Community engagement in ecotourism programs in Bali

Code	Indicator	Operational definition	Trends	Remarks
M1	Money	Motivation to make money	3.68	Very good
M2	Knowledge	Motivation to gain knowledge about nature conservation	3.60	Very good
M3	Optimism	Motivation for optimism that ecotourism programs are useful for the community	3.84	Very good
M4	Mindset	Idealism about the importance of nature conservation	3.72	Very good
M5	Interest	Interest from local communities independently	3.62	Very good
M6	Socialization	Local communities are motivated by the government and community leaders	3.14	Very good
M7	Income	Promising income for the community	3.08	Very good
M8	Commitment	The existence of local community commitment	3.09	Very good
M9	Independence	Concerns of local communities from outside interference	3.79	Very good
O1	Facilities	Availability of facilities	3.23	Very good
O2	Awareness	Growing awareness of the community	3.76	Very good
O3	Natural beauty	Available natural beauty	3.48	Very good
O4	Training	Ecotourism training that has been obtained	3.68	Very good
O5	Tourist arrival	The arrival of tourists is an opportunity for ecotourism management	3.57	Very good
O6	Infrastructure	Availability of infrastructure	2.52	Good
A1	Funding	Availability of budget	2.41	Good
A2	Skills	Availability of skilled human resources	2.65	Good
A3	Participation	There is a commitment from the local community	3.87	Very good
A4	Labor	Availability of local HR support	3.74	Very good
A5	Leadership	Availability of leaders who direct and motivate	3.65	Very good
A6	Role of youth and women	Support from youth, and women	3.21	Very good
A7	Cooperation	There is cooperation with tourism service providers such as travel agents who bring tourists to ecotourism.	3.55	Very good
B1	Nature tourism	Tourism businesses (trekking)	3.82	Very good
B2	Forest products	Local forest-related businesses	3.86	Very good
B3	Agricultural products	Farming business intercropping, and the like	3.77	Very good
B4	Handicrafts	Handicraft businesses such as souvenirs made from forest products	3.78	Very good

Source: primary data processing [2], [4], [24]

3.2. Analysis of factors determining community participation in ecotourism programs in Bali

3.2.1. Tabulation and data processing

In this stage, twenty-six variables were identified as variables that determine community participation in ecotourism programs in Bali. The data analyzed consists of 250 rows and 26 columns (variables) so the total data is 6,500 data cells. The description of the number of rows and columns shows that the data processed is sufficient for further analysis. Furthermore, the factor analysis process is carried out to determine the significance of the degree of data adequacy statistically by measuring Keiser-Meyers-Oklin (KMO) [25], [26].

3.2.2. Formation of correlation matrix

The correlation matrix is a matrix that contains the correlation coefficients of all pairs of variables in this study. This matrix is used to obtain the closeness value of the relationship between research variables. This closeness value can be used to conduct several tests to see whether it is consistent with the correlation value obtained from factor analysis [28], [29].

At this stage, two things need to be done so that factor analysis can be carried out, the first is determining the value of Bartlett's test of sphericity, which is used to determine whether there is a significant correlation between variables, and the second is the KMO measure of sampling adequacy (MSA), which is

used to measure sample adequacy by comparing the magnitude of the observed correlation coefficient with its partial correlation coefficient [25].

The criteria for suitability in the use of factor analysis are if the KMO price of 0.9 means very satisfactory, if the KMO price of 0.8 means satisfactory, if the KMO price of 0.7 means medium price, if the KMO price of 0.6 means sufficient if the KMO price of 0.5 means unsatisfactory, and if the KMO price is less than 0.5 is not acceptable. The calculation results in Table 2 show the magnitude of the Bartlett test of sphericity value is 1,854.709 at a significant 0.000, which means that in this study there is a very significant correlation between variables and the results of the KMO calculation are 0.782 so that the sample adequacy is in the medium category [25], [26], [30].

To determine whether the sampling process is adequate or not, the MSA measurement is used. The analysis results show that the MSA number ranges from 0 to 1, with the criteria used for interpretation as follows [31]:

- i) If MSA=1, then the variable can be predicted without error by the other variables.
- ii) If the MSA is greater than half 0.5 then the variable is still predictable and can be analyzed further.
- iii) If the MSA is smaller than half of 0.5 and or close to zero (0), then the variable cannot be analyzed further or is excluded from other variables.

The MSA value for all 26 measured variables is greater than 0.5, so the variables are still predictable and can be analyzed further as shown in Table 3.

Table 2. Barlett's test of sphericity and KMO MSA values

KMO and Bartlett's test		
KMO MSA		0.782
Bartlett's test of sphericity	Approx. chi-square	1,854.709
	df	325.000
	Sig.	0.000

Source: primary data processing [2], [4], [24]

Table 3. MSA values

Indicator	MSA	Indicator	MSA
Money	.666a	Travelers	.773a
Knowledge	.735a	Infrastructure	.812a
Optimistic	.689a	Funding	.543a
Mindset	.863a	Skills	.517a
Interests	.751a	Participation	.741a
Socialization	.690a	Labor absorption	.873an
Income	.684a	Role of leaders	.827a
Commitment	.676a	Role of youth and women	.802an
Independence	.741a	Cooperation	.771a
Facilities	.635a	Tourism business	.823an
Awareness	.734a	Forest products	.879a
Nature	.803a	Agricultural or fishery products	.854a
Training	.770a	Handicrafts	.875a

Source: primary data processing [2], [4], [24]

3.2.3. Factor extraction

At this stage, the core process of factor analysis is carried out, namely extracting a set of variables that have KMO greater than 0.5 so that one or more factors are formed. The method used for this purpose is principal component analysis and factor rotation with the varimax method (part of orthogonal) [25], [26]. The determination of the number of factors, each of which is a combination of several interconnected variables, is based on the eigenvalue. Eigenvalue is the sum of the variance of the correlation values of each factor to each variable that forms the factor concerned. The greater the eigenvalue of a factor, the more representative it is of the group of variables. The eigenvalue arrangement is always sorted from largest to smallest, with the criteria that the eigenvalue number below one is not used in calculating the number of factors formed [25], [26]. Table 4 shows that this study obtained eight factors that have an eigenvalue greater than 1.0. The eight factors explain 61.710% of the total variance of variables that determine community participation in ecotourism programs in Bali.

3.2.4. Factor rotation matrices

Once it is known that four factors are the most optimal number, Table 5 discusses the component matrix, which shows the distribution of the nineteen variables in this study on the eight factors formed through factor rotation. In factor rotation, the factor matrix is transformed into a simpler matrix, making it easier to interpret [25], [26].

In this analysis, factor rotation was carried out using the varimax rotation method. Interpretation of the results is done by looking at the loading factor. Factor loading is a number that shows the amount of correlation between a variable and factor one, factor two, factor three, factor four, factor five, factor six, factor seven, and factor eight formed [25], [26].

Table 4. Total variance explained with eigenvalue ≥ 1

Component	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings	
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total	% of variance
1	5.311	20.425	20.425	5.311	20.425	20.425	3.353	12.895
2	2.506	9.638	30.064	2.506	9.638	30.064	2.327	8.952
3	1.829	7.033	37.096	1.829	7.033	37.096	2.022	7.777
4	1.490	5.732	42.828	1.490	5.732	42.828	1.943	7.474
5	1.402	5.391	48.219	1.402	5.391	48.219	1.914	7.362
6	1.324	5.092	53.311	1.324	5.092	53.311	1.594	6.131
7	1.131	4.350	57.662	1.131	4.350	57.662	1.510	5.806
8	1.052	4.048	61.710	1.052	4.048	61.710	1.381	5.313

Extraction method: principal component analysis

Source: primary data processing [2], [4], [24]

Table 5. Distribution of rotated matrix components

Indicator	1	2	3	4	5	6	7	8
Money	0.05	0.12	0.03	-0.00	0.81	0.11	0.17	0.09
Knowledge	0.15	0.09	0.21	0.13	0.74	0.19	0.03	0.04
Optimistic	0.24	-0.22	0.06	0.11	0.61	-0.25	0.02	-0.21
Mindset	0.10	0.54	-0.02	0.01	0.24	0.20	0.16	0.17
Interests	0.03	0.08	0.28	0.06	0.17	-0.12	0.74	0.03
Socialization	-0.01	0.06	0.76	0.01	0.12	0.10	0.19	-0.11
Income	0.05	0.08	0.82	0.08	0.07	0.06	0.00	-0.05
Commitment	0.05	0.04	0.68	0.05	0.04	0.03	0.07	0.24
Independence	0.14	-0.05	0.08	0.50	0.09	0.58	0.20	0.15
Facilities	0.05	-0.07	0.14	0.00	0.08	0.73	-0.05	-0.10
Awareness	0.17	-0.01	0.13	0.76	0.13	0.07	0.02	-0.09
Nature	0.23	0.32	0.20	0.46	-0.19	-0.23	0.06	-0.12
Training	0.23	-0.11	0.13	0.34	0.14	0.26	0.60	-0.08
Travelers	-0.01	0.51	0.09	0.27	0.09	0.36	-0.07	-0.12
Infrastructure	0.04	0.23	-0.09	0.62	0.08	0.05	0.12	0.19
Funding	-0.13	-0.06	0.08	0.24	-0.05	-0.10	0.10	0.71
Skills	0.12	0.10	-0.02	-0.15	0.05	0.01	-0.13	0.75
Participation	0.41	0.22	-0.11	-0.23	-0.10	0.39	0.43	-0.16
Labor absorption	0.40	0.47	-0.07	0.12	0.02	-0.12	0.40	0.02
Role of leaders	0.51	0.49	0.05	0.09	-0.04	-0.20	-0.06	0.07
Role of youth and women	0.16	0.70	0.10	0.20	0.02	-0.22	-0.09	-0.05
Cooperation	0.33	0.61	0.13	-0.11	-0.13	-0.03	0.09	0.05
Tourism business	0.82	0.06	0.02	0.08	0.11	0.02	0.20	-0.03
Forest products	0.75	0.06	0.07	0.18	0.26	0.05	0.06	-0.09
Agricultural or fishery products	0.76	0.14	0.03	0.19	0.14	0.07	-0.03	0.04
Handicrafts	0.74	0.30	0.01	-0.04	-0.02	0.11	0.07	0.06

Source: primary data processing [2], [4], [24]

The process of determining which variables will enter which factor, is done by comparing the correlation magnitude in each row in each table by selecting the largest correlation value in the same row. For example, the money variable is determined to enter factor 5 because it has the largest correlation value in the same row (the meeting between row 1 and column 5, namely a correlation of 0.81) [29].

3.2.5. Naming factors

At this stage, the names of the factors that have been formed will be given based on the factor loading of a variable on the formed factor. The results of the analysis found that there were eight factors, as shown in Table 6. The eigenvalues, total variance, and correlation values of each factor formed in Table 6 can be explained as follows:

- i) The first factor is the role of leaders and business opportunities. This factor is the factor that has the greatest influence, namely the role of leaders and business opportunities factor with eigenvalues of 20.425, and a total variance of 5.311. The role of leaders and business opportunities factor consists of 5 variables, these variables include, among others, the role of leaders (0.51), tourism business (0.82), forest products (0.75), agricultural or fishery products (0.76), and handicrafts (0.74).
- ii) The second factor is the mindset and industry cooperation factor. This factor is a factor that has the second influence, namely the mindset and industrial cooperation factor with eigenvalues of 9.638. and a total variance of 2.506. The mindset and industrial cooperation factor consist of 5 variables, these variables include, mindset (0.54), traveler (0.51), labor absorption (0.47), the role of youth and women (0.70), and industry cooperation (0.61).

- iii) The third factor is the income, socialization, and commitment factors. This factor is the factor that has the third influence, namely the income, socialization, and commitment factor with eigenvalues of 9.638). and a total variance of 2.506. The income, socialization, and commitment factor consist of 3 variables, these variables include socialization (0.76), income (0.82), and commitment (0.68).
- iv) The fourth factor is the awareness of nature conservation factor. This factor is the factor that has the fourth influence, namely the awareness of nature conservation factor with eigenvalues of 5.732 and a total variance of 1.490. The awareness of the nature conservation factor consists of 3 variables, these variables include (0.76), nature awareness (0.46), and infrastructure (0.62).
- v) The fifth factor is the optimism for money and knowledge factor. This factor is a factor that has the fifth influence, namely the optimism factor of getting money and knowledge with eigenvalues of 5.391 and a total variance of 1.402. The optimism factor of getting money and knowledge for 3 variables, these variables include money (0.81), knowledge (0.74), and optimism (0.61).
- vi) The sixth factor is the facility factor and independence. This factor is the sixth influential factor, namely the facilities and independence factor with eigenvalues of 5.092 and a total variance of 1.324. The facilities and independence factor consists of 2 variables, these variables include independence (0.58), and facilities (0.73).
- vii) The seventh factor is the training, interest, and participation factor. This factor is the factor that has the seventh influence, namely the training, interest, and participation factor with eigenvalues of 4.350 and a total variance of 1.131. The training, interest, and participation factor consists of 3 variables, these variables include interest (0.74), training (0.60), and participation (0.43).
- viii) The eighth factor is the skills and funding factor. This factor is the factor that has the eighth influence, namely the skills and funding factor with eigenvalues of 4.048 and a total variance of 1.052. The skills and funding factor consists of 2 variables, these variables include funding (0.71), and skills (0.75).

Table 6. Naming factors that determine community participation in ecotourism programs in Bali

Factor	Naming factors	Indicator (factor loading)				
1	Leader role and business opportunities (eigenvalues = 20.425) and total variance = 5.311	Leader role	Tourism business	Forest products	Agricultural or fishery products	Handicrafts
2	Mindset and industry cooperation (eigenvalues = 9.638) and total variance = 2.506	Mindset	Traveler	Labor absorption	The role of youth and women	Industry cooperation
3	Income, socialization, and commitment (eigenvalues = 7.033) and total variance = 1.829	Socialization	Income	Commitment		
4	Awareness of nature conservation (eigenvalues = 5.732) and total variance = 1.490	Awareness	Nature	Infrastructure		
5	Optimism of earning money and knowledge (eigenvalues = 5.391) and total variance = 1.402	Money	Knowledge	Optimistic		
6	Facilities, and independence (eigenvalues = 5.092) and total variance = 1.324	Self-reliance	Facility			
7	Training, interest, and participation (eigenvalues = 4.350) and total variance = 1.131	Interest	Training	Participation		
8	Skills and funding (eigenvalues = 4.048) and total variance = 1.052	Budget	Skills			

Source: primary data processing [2], [4], [24]

3.3. Model accuracy test (goodness of fit)

The goodness of fit test results of the percentage residuals are computed between observed and reproduced correlations [29]. There are 123 (37.0%) no redundant residuals with absolute values greater than 0.05 means that the accuracy (goodness of fit) of the model can be known and can be accepted with 63%

model accuracy at a significant level of 0.05. Statistically, the resulting model factor can be trusted up to 63% at a significant level of 0.05.

4. CONCLUSION

Eight factors determine community participation in ecotourism programs in Bali consisting of eight factors, namely the first factor is the role of leaders and business opportunities, the second factor is the mindset and industry cooperation factor, the third factor is income, socialization, and commitment factor, the fourth factor is the awareness of nature conservation factor, the fifth factor is the optimism factor of earning money and knowledge, the sixth factor is the facility factor and independence, the seventh factor is the training, interest, and participation factor, and the eighth factor is the skills factor and funding. The factor that has the greatest influence is the role of leaders and business opportunities factor with eigenvalues of 20.425 and a total variance of 5.311. The role of leaders and business opportunities factor consists of 5 variables, these variables include, among others, the role of leaders (0.51), tourism business (0.82), forest products (0.75), agricultural or fishery products (0.76), and handicrafts (0.74).

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REFERENCES

- [1] C. D'Souza, M. Taghian, T. Marjoribanks, G. Sullivan-Mort, M. D. Manirujjaman, and S. Singaraju, "Sustainability for ecotourism: work identity and role of community capacity building," *Tourism Recreation Research*, vol. 44, no. 4, pp. 533–549, Oct. 2019, doi: 10.1080/02508281.2019.1654727.
- [2] I. G. B. R. Utama, I. W. R. Junaedi, and N. P. D. Krismawintari, "The Bali ecotourism destination management to create local small business," *International Journal of Sustainable Development and Planning*, vol. 18, no. 11, pp. 3439–3447, Nov. 2023, doi: 10.18280/ijstdp.181109.
- [3] I. G. B. R. Utama and C. P. Trimurti, "The ethical development of agritourism in protected territory Pelaga Badung Bali, Indonesia," *Jurnal Manajemen dan Kewirausahaan*, vol. 21, no. 2, pp. 114–119, Oct. 2019, doi: 10.9744/jmk.21.2.114-119.
- [4] I. G. B. R. Utama and C. P. Trimurti, "The implementation of the MOA method in ecotourism of Buyan-Tamblingan, Bali, Indonesia," *International Journal of Modern Agriculture*, vol. 10, no. 1, pp. 957–970, 2021.
- [5] C. Bama, M. Epure, and R. Vasilescu, "Ecotourism—conservation of the natural and cultural heritage," *Review of Applied Socio-Economic Research*, vol. 1, no. 1, pp. 87–96, 2011.
- [6] S. Y. P. Ho and A. To, "Cultural events as tourism products - opportunities and challenges," in *Global Events Congress IV: Festivals & Events Research: State of the Art. Incorporating the 8th AEME Events Management Educators' Forum*, Leeds, UK, 2010, pp. 1–16.
- [7] B. L. Gutierrez *et al.*, "Ecotourism: the 'human shield' for wildlife conservation in the Osa Peninsula, Costa Rica," *Journal of Ecotourism*, vol. 19, no. 3, pp. 197–216, Jul. 2020, doi: 10.1080/14724049.2019.1686006.
- [8] I. G. B. R. Utama, I. N. Laba, I. W. R. Junaedi, N. P. D. Krismawintari, S. B. Turker, and J. Juliana, "Exploring key indicators of community involvement in ecotourism management," *Journal of Environmental Management and Tourism*, vol. 12, no. 3, pp. 808–817, Jun. 2021, doi: 10.14505/jemt.12.3(51).20.
- [9] I. G. B. R. Utama and N. M. E. Mahadewi, "The contradiction of managing tourism objects based on culture and its heritage," *SSRN Electronic Journal*, 2014, doi: 10.2139/ssrn.2517074.
- [10] E. A. Rogos, "Factors affecting community participation in ecotourism programs: a case study of communities in Padawan District, Sarawak," Swinburne University of Technology Sarawak Campus, Kuching, Malaysia, 2020.
- [11] E. J. Miharja, D. A. P. Sari, I. D. K. K. Widana, C. Ridhani, and I. G. W. Suyasa, "Forest bathing: a new attraction and disaster mitigation for Batur UNESCO Global Geopark Bali," in *IOP Conference Series: Earth and Environmental Science*, Dec. 2021, p. 012008. doi: 10.1088/1755-1315/940/1/012008.
- [12] I. G. B. R. Utama, P. C. Susanto, C. P. Trimurti, and N. P. D. Krismawintari, "The market potential and financial feasibility of cable car tourist attraction development in Pelaga, Bali, Indonesia," *International Journal of Advances in Applied Sciences*, vol. 11, no. 4, p. 373, Dec. 2022, doi: 10.11591/ijaas.v11.i4.pp373-382.
- [13] I. G. B. R. Utama *et al.*, "The legal aspects of determining the feasibility of cable car tourist attraction in Pelaga, Bali, Indonesia," *Res Militaris*, vol. 12, no. 2, pp. 398–416, 2022.
- [14] I. D. G. Satrya, T. S. Kaihatu, L. P. Budidharmanto, D. F. Karya, and N. W. P. Rusadi, "The role of ecotourism in preserving environmental awareness, cultural and natural attractiveness for promoting local communities in Bali, Indonesia," *Journal of Eastern European and Central Asian Research (JEECAR)*, vol. 10, no. 7, pp. 1063–1075, Dec. 2023, doi: 10.15549/jeeear.v10i7.1386.
- [15] N. P. D. Krismawintari and I. G. B. R. Utama, "Study on the implementation of community based tourism principles in Jatiluwih, Tabanan, Bali (in Indonesian)," *Jurnal Kajian Bali (Journal of Bali Studies)*, vol. 9, no. 2, pp. 429–448, Oct. 2019, doi: 10.24843/JKB.2019.v09.i02.p08.
- [16] I. G. B. R. Utama and C. P. Trimurti, "Buyan Tamblingan agro tourism ethical planning in forest conservation border areas," in *Proceedings of the 1st International Conference of Global Education and Society Science (ICOGESS 2019)*, Medan, Indonesia: EAI, 2020. doi: 10.4108/eai.14-3-2019.2291999.
- [17] A. Kiss, "Is community-based ecotourism a good use of biodiversity conservation funds?," *Trends in Ecology & Evolution*, vol. 19, no. 5, pp. 232–237, May 2004, doi: 10.1016/j.tree.2004.03.010.
- [18] M. M. S. El-Masry, "Discursive representation of ecotourism on the International Ecotourism Society (TIES) homepage: a multi-




- modal social semiotic framework,” *International Journal of Society, Culture & Language*, vol. 12, no. 1, pp. 1–14, 2024, doi: 10.22034/ijscsl.2024.2019333.3322.
- [19] N. A. Aziz and A. A. Ariffin, “Identifying the relationship between travel motivation and lifestyles among Malaysian pleasure tourists and its marketing implications,” *International Journal of Marketing Studies*, vol. 1, no. 2, pp. 96–106, Oct. 2009, doi: 10.5539/ijms.v1n2p96.
- [20] I. G. B. R. Utama and C. P. Trimurti, “The perception toward development of agritourism destination in protected area from visitor perspective,” *TEST Engineering & Management*, vol. 83, pp. 18237–18246, Apr. 2020.
- [21] S. E. Nurhidayati and C. Fandeli, “Application of community based tourism (CBT) principles in agritourism development in Batu City, East Java (in Indonesian),” *Jejaring Administrasi Publik*, vol. 4, no. 1, pp. 36–46, 2012.
- [22] K. Bricker, “The international ecotourism society,” *Travel and Tourism Research Association: Advancing Tourism Research Globally*, 2017, [Online]. Available: https://scholarworks.umass.edu/ttra/2013marketing/White_Papers/11.
- [23] K. D. Regmi and P. G. Walter, “Conceptualising host learning in community-based ecotourism homestays,” *Journal of Ecotourism*, vol. 15, no. 1, pp. 51–63, Jan. 2016, doi: 10.1080/14724049.2015.1118108.
- [24] I. G. B. R. Utama, I. W. R. Junaedi, and N. P. D. Krismawintari, “The market potential and sustainability Bali ecotourism destination,” *Journal of Law and Sustainable Development*, vol. 11, no. 1, p. e408, Jun. 2023, doi: 10.37497/sdgs.v11i1.408.
- [25] J. F. Hair, “Research methods for business,” *Education + Training*, vol. 49, no. 4, pp. 336–337, Jun. 2007, doi: 10.1108/et.2007.49.4.336.2.
- [26] A. Ferdinand, *Management research methods: research guidelines for writing theses and dissertations of management science (in Indonesian)*, 2014.
- [27] I. G. B. R. Utama, C. P. Trimurti, N. M. D. Erfiani, N. P. D. Krismawintari, and D. Waruwu, “The tourism destination determinant quality factor from stakeholders perspective,” *Indonesian Journal of Tourism and Leisure*, vol. 2, no. 2, pp. 96–106, Oct. 2021, doi: 10.36256/ijtl.v2i2.164.
- [28] D. D. White, “A structural model of leisure constraints negotiation in outdoor recreation,” *Leisure Sciences*, vol. 30, no. 4, pp. 342–359, 2008, doi: 10.1080/01490400802165131.
- [29] F. Meng, Y. Tepanon, and M. Uysal, “Measuring tourist satisfaction by attribute and motivation: the case of a nature-based resort,” *Journal of Vacation Marketing*, vol. 14, no. 1, pp. 41–56, Jan. 2008, doi: 10.1177/1356766707084218.
- [30] I. G. B. R. Utama, “Tourism destination image of Bali according to European Tourist,” in *Proceedings of the 2nd International Conference on Innovative Research Across Disciplines (ICIRAD 2017)*, Paris, France, Aug. 2017, doi: 10.2991/icirad-17.2017.6.
- [31] C. F. Chen and C. C. Wu, “How motivations, constraints, and demographic factors predict seniors’ overseas travel propensity,” *Asia Pacific Management Review*, vol. 14, no. 3, pp. 301–312, 2009, doi: 10.6126/APMR.2009.14.3.05.

BIOGRAPHIES OF AUTHORS






I Gusti Bagus Rai Utama    is a full professor of tourism business management at the Faculty of Business, Tourism, Education, and Humanity, Dhyana Pura University, Bali, Indonesia. He can be contacted at email: rautama@undhirabali.ac.id.



I Wayan Ruspindi Junaedi    is an associate professor of tourism in the Faculty of Business, Tourism, Education, and Humanity, at Dhyana Pura University, Bali, Indonesia. He can be contacted at email: ruspindijunaedi@undhirabali.ac.id.



Ni Putu Dyah Krismawintari    is an assistant professor of tourism in the Faculty of Business, Tourism, Education, and Humanity, Dhyana Pura University, Bali, Indonesia. She can be contacted at email: krismawintari@undhirabali.ac.id.