
| RESEARCH ARTICLE

An Emerging Ecotourism Destination of Ilug Kamalig in the Municipality of Porac Province of Pampanga Philippines

Jim Enrico C. Balboa¹ ✉ Anna Marie R. Nepomuceno², Dr. Jan Michael M. Sanchez³, Sharmaine G. Balboa⁴ and Angelo I. Ferrer⁵

¹CHP, MBA, CHCD, Hospitality and Tourism Educator

²CTP, LPT, MSHTM, CHCD, MAED, Hospitality and Tourism Educator

³Hospitality and Tourism Educator

⁴LPT, Educator and Statistician

⁵CTP, CHP, MBA, Hospitality and Tourism Educator

Corresponding Author: Jim Enrico C. Balboa, **E-mail:** jcbalboa@fatima.edu.ph

| ABSTRACT

This study aims to explore the potential economic and socio-cultural opportunities essential for achieving sustainable tourism development in Ilug Kamalig, an emerging ecotourism destination located in the municipality of Porac, Province of Pampanga. Data collection was conducted through traditional pen-and-paper survey questionnaires administered to sixty tourists visiting Ilug Kamalig, originating from Porac and neighboring cities and provinces. The gathered data will be systematically analyzed using descriptive statistical tools, including percentage distribution, mean scores, and verbal interpretation. Findings from the study underscore the significance of ecotourism as a sustainable tourism model that benefits both local communities and visitors. Ecotourism plays a vital role in preserving natural landscapes and cultural heritage, promoting environmental conservation, safeguarding indigenous traditions and ways of life, and fostering economic development. The results affirm that ecotourism attractions like Ilug Kamalig offer substantial advantages to residents, who are instrumental in harnessing these opportunities to drive meaningful change and contribute to the site's long-term sustainability. Furthermore, the study highlights the importance of a strategic marketing plan designed to assist local government units (LGUs) and tourism personnel in identifying and promoting unique products and services that can enhance the visitor experience. By empowering stakeholders and encouraging community participation, Ilug Kamalig can evolve into a thriving ecotourism hub that exemplifies sustainable development in the region.

| KEYWORDS

Ecotourism, Socio-Cultural, Ilug Kamalig, Economic Benefit.

| ARTICLE INFORMATION

ACCEPTED: 20 October 2025

PUBLISHED: 02 November 2025

DOI: 10.32996/jths.2025.3.4.2

1. Introduction

Ecotourism represents a vital form of sustainable tourism that benefits both local communities and visitors by safeguarding natural and cultural heritage. It actively promotes the conservation of natural resources, the preservation of cultural traditions and indigenous lifestyles, environmental stewardship, and inclusive economic development. According to The International Ecotourism Society (2015), ecotourism is defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of local people, and involves interpretation and education." This definition underscores the dual emphasis on ecological preservation and community empowerment.

Aligned with the insights of the World Tourism Organization (UNWTO), contemporary travelers—particularly younger generations—seek authentic and meaningful connections with the people and places they encounter. Sustainable practices are essential to ensure that future generations can continue to benefit from the planet's natural resources. Moreover, the World Tourism Organization Affiliate Members Global Report (2016) highlights a growing preference among tourists for destinations with fewer crowds, often in rural settings, where they can immerse themselves in local culture and “live like a local.” This trend reinforces the value of ecotourism as a pathway to deeper cultural appreciation and sustainable travel experiences.

A few years ago, the Ilug Kamalig (*Camalig River*) was widely known as a dumpsite but is now one of the environmentally friendly attractions in Porac, Pampanga. The solicitude of the people for the environment paved the way for the development of this place, and through the years it evolved and focused on continuously protecting the area by giving sharper attention to encouraging tourists to be responsible when traveling and able to restore and conserve to be able to sustain its natural beauty. As signed by the Former President of the Philippines Estrada (1999) Executive Order No. 111, s. 1999 which is Establishing Guidelines for Ecotourism Development in the Philippines, where the state developed and promoted sustainable tourism with the help of the Filipino people in the development and competitiveness of the country's economy, guaranteeing the sustainable use, development, management, protection, and conservation of the environment and other natural resources. With ecotourism, local communities have created sites that are discovered and developed to showcase to people while maintaining the well-being of the place as well as its people.

According to Ocampo et al. (2018), ecotourism has the most potential when characterized as follows: ecologically responsible travel to natural sites with a protected environment, increasing the well-being of communities, and providing explanation and learning along with the activities necessary to attract tourists. Consequently, it might cause environmental problems if not properly planned and executed to meet ecological, social, and economic goals. Ecotourism growth must support educational advancement and raise public understanding of the importance of maintaining the local ecology together. It is crucial to raise public awareness of this issue, acquire the necessary skills, and establish goals for the development of ecotourism in order to eliminate the barriers that limit its development. The Ilug Kamalig is known as a perfect site to spend leisure time and do recreational activities such as swimming, picnic, fishing and camping. This study aims to open new opportunities in terms of economic and socio-cultural development by means of proposing a marketing plan and considering the strategies whereas researchers observed it is necessary to obtain the sustainable tourism development of Ilug Kamalig.

2. Review of Related Literatures and Studies

2.1 Foreign Literature

As stated by United Nations World Tourism Organization (2021), to adapt to the 'new normal,' experts identify a growing interest in open-air and nature-based niche tourism. In addition, the pandemic affects the preferences of tourists in choosing attractions or travel getaways as they are more focused on nature-based activities now with nastily promoting its attraction site, its sustainability in preserving the place through the involvement of tourists and local community as well as the warmth, safety, and enjoyment of nature leisure tourism. As mentioned by Quoquab et al., (2020), eco-friendly tourism will continue to be a prominent form of tourism in the future.

According to Pham & Kayat (2011), locals promote tourism for its socio-cultural and environmental benefits rather than economic ones. Several researchers concentrate on studying mainly the socio-cultural aspects of a tourist destination as a major determinant towards sustainable tourism development, which develops through interactions between local residents and tourists (Andereck et al., 2005; Bello et al., 2017 & Zhuang et al., 2019). Bello et al. emphasize that the socio-cultural influences are closely linked to the site and the interaction of locals with tourists. Therefore, it is critical to recognize the importance of community diversity in the long-term sustainability of tourism (Andereck et al., 2007). In accordance with Andereck et al., (2005 & 2007), Mbaiwa (2005) & Zaei (2013) among the positive socio-cultural effects of tourism are infrastructural development, improved community services, leisure and recreation, funding for cultural activities, cultural awareness, conservation of local heritage and culture, and improvement of local cultural practices. According to previous research, the negative socio-cultural effects of tourism development can be seen in a variety of ways, such as changes in the behavior and values of indigenous communities, changes in their traditions and cultures, a change in their quality of life, and a loss of their cultural identity.

2.2 Foreign Studies

Ecotourism is the utmost encompassing alternative approach, and it's generally distinguished as a cure-all able of combining economic growth, environmental protection, and community well-being. However, as the number of travelers grows, consequently do the adversities or obstacles consorted with guest and tourist demeanor, comparable as pollution, forestland cutting and fire, wildlife turmoil, and indecent waste disposal. These implicit hazards have come with the natural environment-harming concerns that befall day-to-day (Muddassar Khan et al, 2022). In the study of Thi Thu Tran (2015), nowadays, many

countries actively promote ecotourism to contribute to maintaining practices about conservation and give incentives to the local community.

In the context of ecotourism sites, Travelling is an activity that explores and embraces new surroundings and experiences, visiting natural and cultural assets, appreciating practices, and maintaining sustainability both being natural and socially responsible as it is open tourism. The changing preferences of tourists when choosing the next destination to visit generate advantages and development to meet the demands of tourists. Understanding the traveler's stances and preferences can help managers to establish sustainable cultural tourism packages. Choice experiments were originally developed by Louviere and Hensher (1982) and Louviere and Woodworth (1983). Traveler preferences for ecotourism have been studied using the Choice Experiment (CE) approach (Hearne & Salinas, 2002; Hearn & Santos, 2005). After some first studies referred to CE for analysis of recreationists' preferences (Adamowicz, Louviere & Williams, 1994; Boxall, Adamowicz, Swait, Williams, & Louviere, 1996; Boxall & Macnab, 2000), this approach has been extensively applied to break down traveler preferences for ecotourism development in protected areas (Chaminuka, Groeneveld, Selomane, & van Ierland, 2012; Hearne & Salinas, 2002; Hearne & Santos, 2005; Naidoo & Adamowicz, 2005). Therefore, it's important to estimate tourist preferences in the environment of ecotourism activities (Cheng et al, 2017), as well as the willingness to pay (WTP) for the attributes of ecotourism that community's inventory, as the results of similar evaluations can help establish operation strategies for community- based ecotourism in rural areas. Also, building integrity and supporting the identity and economic development of areas and local communities.

As per Ashok, Tewari, Behera, & Majumdar (2017) since environmental, economic, and social factors are at the core of sustainable development, ecotourism is therefore positioned as a strategy to promote it in protected areas and the areas around them. Furthermore, ecotourism is also employed to raise the economic worth of protected places and provide locals with chances for economic growth (Goodwin, 1996). In addition, according to Dudley (2008), a protected area is "a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values." Protected areas are essential for ecotourism because of their rich natural, historical, and cultural heritage (Cengiz, 2007).

2.3 Statement of the Problem

The main purpose of the study is to determine how the Ilug Kamalig Porac, Pampanga will be an emerging ecotourism destination. Specifically, this research intends to answer the following questions:

1. How may the demographic profile of the respondents be described in terms of:
 - 1.1 Location
 - 1.2 Age
 - 1.3 Gender
2. How may Ilug Kamalig be an ecotourism destination in terms of:
 - 2.1 Socio-cultural Benefits
 - 2.2 Economic Benefits
3. Is there a significant relationship between the Economic Benefits and Socio-Cultural Benefits of Ilug Kamalig as an emerging ecotourism destination?
4. Is there a significant association between profile and the Economic Benefits of Ilug Kamalig?
5. Is there a significant association between profile and the Socio-cultural benefits of Ilug Kamalig?

Hypothesis

- H1.** There is a significant relationship between the Economic Benefits and Socio-Cultural Benefits of Ilug Kamalig as an emerging ecotourism destination.
- H2.** There is a significant association between profile and the Economic Benefits of Ilug Kamalig.
- H3.** There is a significant association between profile and the Socio-cultural benefits of Ilug Kamalig.

2.5 Research Paradigm

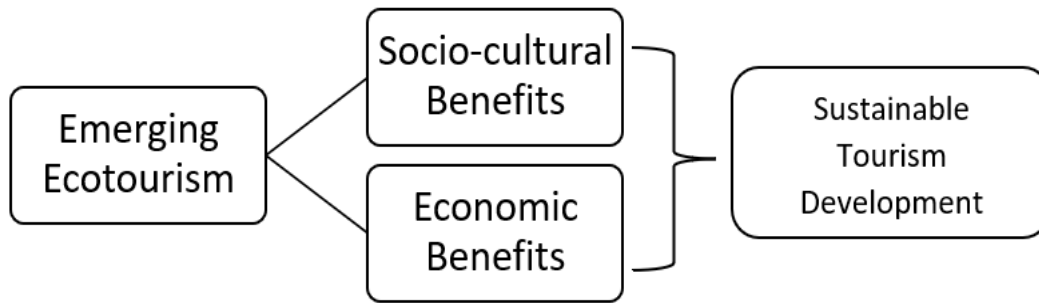


Figure 1 Research Simulacrum

The researchers are keen to know how ecotourism minimizes the adverse effects and maximizes the positive ones and contributes to economic, and socio-cultural growth that will lead to the sustainable tourism development of Ilug Kamalig, Porac Pampanga.

2.6 Significance of the Study

This study will determine the Ilug Kamalig as an Emerging Ecotourism destination for economic and socio-cultural development and its contribution to the municipality of Porac, Pampanga.

This study can be an instrument for the local community in further improvement of Ilug, Kamalig.

- To the **Personnels of the Destination**. To continuously develop and promote the Ilug, Kamalig.
- To the **Locals**. Active participation of the community plays an important role in tourism development as it will open new and unique experiences and improve their knowledge on how to conserve and sustain the asset of the area. It also helps the financial stability and creates opportunities to introduce while protecting their cultures and values.
- To the **Future Researchers**. This study will be able to contribute to existing knowledge in terms of ecotourism. It will also serve as a reference for future researchers who will conduct similar studies.

2.6 Objectives of the Study

- To introduce the Ilug Kamalig as a new ecotourism site to tourists looking for a new environmentally friendly destination
- To distinguish which attributes have the most impact on the Ilug Kamalig that is seen and experienced by the locals and tourist
- To determine marketing strategies that will bring forth development of the site and municipality of Porac in terms of economic and socio-cultural factors

2.7 Research Design

The researchers will make use of the Quantitative Research design, which emphasizes statistical or numerical analysis of the gathered data with the use of questionnaires, and surveys as defined by E.R., Babbie in the year 2010. The researcher will be applying the Descriptive method that will break down the data and determine the demographic profile of the respondents. This study aims to test the different variables in determining Ilug Kamalig as an emerging ecotourism destination towards sustainable tourism development.

2.7.1 Locale



Figure 2 Map of Ilug Kamalig, Porac Pampanga

Ilug Kamalig was known to be a dumpsite that now had turned into a new attraction in the municipality of Porac. The solicitude of the residents improved the development of the place, and through the years it has progressed in protecting the area by giving more attention to tourists to be responsible when traveling and to be able to restore, conserve, and sustain the place's natural beauty. The researcher chose the Ilug, Kamalig, at Porac, Pampanga, as the research locale due to its remarkable transformation and apt character as an emerging ecotourism destination. In this paper, the data will be conducted from sixty (60) respondents that are locals and tourists coming from nearby cities and provinces. The data gathering will be taken with a traditional survey of pen and paper. This study aims to open new opportunities in terms of economic and socio-cultural development by means of a marketing plan and considering the strategies whereas researchers observed it is necessary to obtain the sustainable tourism development of Ilug Kamalig.

2.8 Population and Sampling

The researcher will be using the Probability Sampling technique to select study samples. There is a total of sixty (60) respondents that will be a source of the researchers for data. Participants in this survey will be coming from; locals from the community of Porac and tourists from nearby cities and provinces. Respondents must be between the ages of 18 to 60. The participant can be excluded when participant have practical considerations such as not being able to read and write as well as instances that participants suddenly withdrawn from the survey due to any reason.

2.9 Research Ethics

Research ethics are moral guidelines that allow researchers to conduct and report studies without harming the participants or the members of society in general. In this study, the researchers recognize the Republic Act No. 10173 or the "Data Privacy Act 2012" to safeguard and protect respondents' personal information. It is vital to uphold ethical guidelines to ensure the validity of the research result. Researchers have a responsibility to maintain a code of confidentiality in gathering data and informed consent as they adopt the questionnaires. This proposal has been reviewed and approved by the Our Lady of Fatima University – Institutional Ethics Review Committee (OLFU – IERC) which is a committee whole task it is to make sure that research participants are protected from any harm. Therefore, permission was sent via email to Ms. Valeriia Sheldaisheva the author of "Quantitative assessment of Ecotourism in the National Park "Samarskaya Luka" that will be used in the study of Ilug Kamalig, Porac Pampanga: An Emerging Ecotourism Destination. Confidentiality is the practice of not disclosing private information which an individual confidently shares. Informed consent indicates that the person giving permission is mindful of the consequences of their decision to participate in the study and is making that decision willingly and after giving it careful consideration. The respondents will be provided with informed consent to conduct the survey. The researchers have agreed to avoid giving any reward to the respondents in return for their participation in the research proper. Their age and municipalities will remain anonymous and ask them to voluntarily participate and cooperate in the study. The researchers will give the participants an assurance that all the information that will be given by the participants to the researchers will be confidential. The researchers may delete the data after the finalization/publication of the research study by burning the hard copies. It must be unbiased with their participants so the research study will successfully be done.

2.10 Research Instruments

The research study will be using pen and paper and adopted questionnaires from the study of Valariia Sheldaisheva entitled "Quantitative assessment of Ecotourism in the National Park "Samarskaya Luka" and that will be conducted on respondents that are locals and tourists coming from nearby cities and provinces. The research instruments consist of two parts. The first part will gather the demographic profiles of the respondents including their location or community of origin, age, and gender. While the second part aims to answer the attributes in terms of Economic and Socio-Cultural factors that make Ilug Kamalig an Emerging Ecotourism Destination. The researcher will inform and ask for consent from the respondents as confirmation of their participation in the study. All the information that will be gathered will be kept confidential and will not be unveiled to anyone. The researcher will apply a 4 Likert scale to assess the respondents' answers which range from Strongly Agree to Strongly Disagree. According to Bhandari P. & Nikolopoulou K. (2023), a Likert Scale is a kind of rating scale that is used to assess thoughts, attitudes, and actions. It is made up of a statement or a question, and respondents select the answer that best expresses their feelings about the topic.

Rating Scale	Mean Range	Verbal Interpretation
4	3.25 - 4.00	Strongly Agree
3	2.50 - 3.24	Agree
2	1.75 - 2.49	Disagree
1	1.00 - 1.74	Strongly Disagree

Table 1 Likert Scale

2.11 Data Collection

This study aims to open new opportunities in terms of economic and socio-cultural development by means of a marketing plan and considering the strategies whereas researchers observed it is necessary to obtain the sustainable tourism development of Ilug Kamalig. The researcher will use a traditional survey of pen and paper as a method of collecting data. The researchers will gather respondents from sixty (60) respondents that are locals and tourists coming from nearby cities and provinces. These data-gathering methods will begin conducted after the researchers have received approval from the research adviser and professor of this subject.

2.12 Data Analysis

Statistical tools (SPSS) will be used in data analysis. It will support the researcher's adoption of proper techniques, accurate analysis, and data presentation. In this quantitative study, all of the collected data will be continually and categorically analyzed using descriptive statistics including Percentage, Verbal interpretation, and mean. A percentage is used to calculate how many respondents have the same answer to a specific question. As a result, responses are determined, and distinct categories might be created from the responses (Korb, 2013). As stated by Furfey (2000), the meaning of the terms and categories will be known in Verbal interpretation which includes the words and grammatical structure used. As mentioned by Hurley and Tenny (2022), the Mean or the Average of gathered data will be determined by the total sum divided by the total number of values.

2.13 Frequency and Percentage

The researchers will be able to acquire the frequency and percentage of the profile of the respondents by using statistical tools (SPSS). The Frequency and Percentage distributions present data indicating the percentage of analysis for each dataset. It is primarily used to determine percentages for demographic data including age, gender and location. The analysis of the study will determine the Ilug Kamalig as an emerging ecotourism site for tourists looking for a new environmentally friendly destination and will open new opportunities in terms of economic and socio-cultural development by means of a marketing plan and considering the strategies whereas researchers observed it is necessary to obtain the sustainable tourism development.

2.14 Weighted Mean

The data gathered for all survey variables will be examined with the use of weighted means. The weighted mean is the equivalent average of similar items and values. This weight shows the significance of each item to the average. For the data that will be

gathered, the researchers apply descriptive statistics and the statistical program SPSS, which will help the researcher to generate the findings that will be examined and explained in Chapter 4 of this paper.

3. Results and Discussion

This chapter presents the results of the gathered data. The collective information was subjected to statistical analysis and systematically treated according to the arrangement of the basic question on the statement of the problem of this study.

Table 1
Demographics

Profile	F	%
<i>Residence</i>		
Porac	20	33.3 %
Angeles City	13	21.7 %
Other Municipalities of 2 nd District	15	25.0 %
Other Cities/Municipalities of Pampanga	9	15.0 %
Outside Pampanga	3	5.0 %
<i>Age</i>		
18-20	17	28.3 %
21-30	26	43.3 %
31-40	8	13.3 %
above 40	9	15.0 %
<i>Gender</i>		
Male	30	50.0%
Female	30	50.0%

Table 1 presents the profile of the respondents. As shown in the table, majority of them came from the location of Ilug Kamalig itself, the municipality of Porac (33.3%) and its nearby municipalities in the 2nd district (25.0%). In terms of Age, majority of the respondents are aged 21-30 years old (43.3%) and only few are aged 31-40 years old (13.3%). Meanwhile, there is an equal distribution of respondents in terms of Gender.

Table 2
Economic Benefits of Ilug Kamalig

Economic Benefits	Mean	SD	Verbal Interpretation
1. Creates employable opportunities	3.22	0.761	Agree
2. Build new business opportunities	3.30	0.720	Strongly Agree
3. Brings opportunities for locals to generate and/or increase income	3.28	0.739	Strongly Agree
4. Meets my needs and wants	3.17	0.806	Agree
5. Opens more opportunities for the youth to participate in Ilug Kamalig and community development	3.32	0.725	Strongly Agree
6. Provides better and adequate facilities	3.03	0.823	Agree
7. Has accessible public transportation	3.02	0.873	Agree
8. Is publicly recognized	3.13	0.724	Agree
9. Support agricultural growth in the community	3.20	0.684	Agree
10. Increases my spending in local businesses	2.97	0.758	Agree
11. Has good relations with the provincial, regional and national tourism governance	2.90	0.986	Agree
12. Is being promoted by the personnel and LGU	2.87	0.965	Agree
13. Is actively advertise through social media platforms	2.95	0.910	Agree
14. Has policies to maintain the beauty of the place	3.00	0.902	Agree
15. Has souvenirs stores	2.45	0.999	Disagree
<i>Overall Economic Benefits</i>	<i>3.05</i>	<i>0.533</i>	<i>Agree</i>

Table 2 reveals the assessment of the respondents in the Economic Benefits of Ilug Kamalig. In general, they Agree that Ilug Kamalig shares economic benefits in the area. Among the items, statements “Opens more opportunities for the youth to participate in Ilug Kamalig and community development) (Mean = 3.32, SD = .725), “Build new business opportunities” (Mean = 3.30, SD = .720), and “Brings opportunities for locals to generate and/or increase income” (Mean = 3.28, SD = .739) are the highly agreed items. This just implies that respondents believe that Ilug Kamalig being a prospect Ecotourism will create opportunities to the residences and businessmen in the area. On the other hand, respondents Disagree on statement “Has souvenirs stores” (Mean = 2.45, SD = .999) which evidently reveals the absence of nearby souvenir shops.

Table 3
Socio-Cultural Benefits

Economic Benefits	Mean	SD	Verbal Interpretation
1. There is a great interaction between locals and tourists	3.28	0.666	Strongly Agree
2. The personnel are helpful and hospitable in accommodating tourists	3.32	0.676	Strongly Agree
3. I try the foods that local businesses have to offer	3.08	0.809	Agree
4. The personnel offer accommodation and activities that are applicable for all types of tourists	3.17	0.785	Agree
<i>The Ilug Kamalig...</i>			
5. Promotes the social welfare of the local community	3.27	0.686	Strongly Agree
6. Helps stimulate local culture and pride	3.20	0.755	Agree
7. Increases the sense of unity among local residents	3.28	0.585	Strongly Agree
8. Helps to boost local identity	3.32	0.676	Strongly Agree
9. Allows me to meet new people and broader social networks	3.35	0.709	Strongly Agree
10. Made me feel comfortable with fellow tourists	3.35	0.606	Strongly Agree
11. Encourages me to protect and preserve outstanding beauty	3.35	0.606	Strongly Agree
12. Has interesting activities that are perfect for all tourists with different reasons for their leisure time	3.28	0.613	Strongly Agree
13. I would recommend the destination to family and friends	3.40	0.616	Strongly Agree
14. Makes positive contribution to my quality of life	3.38	0.555	Strongly Agree
15. Assure my safety and security while enjoying leisure time	3.42	0.591	Strongly Agree
<i>Overall Socio-Cultural Benefits</i>	3.30	0.501	Strongly Agree

Table 3 presents the assessment of the respondents in terms of the Socio-cultural Benefits of Ilug Kamalig. Respondents generally Strongly Agree on the shared Socio-cultural Benefits of Ilug Kamalig being an emerging Ecotourism destination. Specifically, the most agreed statements are "Assure my safety and security while enjoying leisure time" (Mean = 3.42, SD = .591), "I would recommend the destination to family and friends" (Mean = 3.40, SD = .616), and "Makes positive contribution to my quality of life" (Mean = 3.38, SD = .555), which shows the positive feedback of respondents during their stay in Ilug Kamalig. However, statements "I try the foods that local businesses have to offer" (Mean = 3.08, SD = .809), "The personnel offer accommodation and activities that are applicable for all types of tourists" (Mean = 3.17, SD = .785), and "Helps stimulate local culture and pride" (Mean = 3.20, .755) are the least agreed items which suggests what can still be improved in the emerging ecotourism destination.

Table 4
Significant Relationship between Economic and Socio-Cultural Benefits of Ilug Kamalig

Socio-Cultural Benefits		
Economic Benefits	r	p
	.549	<.001

Table 4 shows the significant relationship between the Economic benefits and Socio-cultural benefits of Ilug Kamalig. As shown in the table, Economic benefits is significantly correlated to Socio-Cultural Benefits ($r = .549$, $p < .001$). This means that as the Economic benefits of the Ilug Kamalig goes higher, its Socio-cultural benefits also go higher – promoting a deeper influence in the social and cultural traditions of the municipality of Porac.

Table 5
Significant association between Profile and Economic Benefits of Ilug Kamalig

Profile	Strongly Agree	Agree	Disagree	Strongly Disagree	X ²	df	p
Residence							
Porac	5	13	1	1	22.4	12	.033
Angeles City	7	6	0	0			
Other Municipalities of 2 nd District	1	8	5	1			
Other Cities/Municipalities of Pampanga	6	1	2	0			
Outside Pampanga	2	1	0	0			
Age							
18-20	4	9	3	1	8.83	9	.453
21-30	13	8	4	1			
31-40	2	6	0	0			
above 40	2	6	1	0			
Gender							
Male	11	15	4	0	2.08	3	.556
Female	10	14	4	2			

Significant association between Profile and Economic Benefits of Ilug Kamalig is presented in Table 5. Among the given profile, Chi square test of association reveals that only the Residence ($X^2 = 22.4$, $df = 12$, $p = .033$) of the respondents has significant association in their assessment of the economic benefits of Ilug Kamalig. This suggests that residents near Ilug Kamalig are highly aware of its economic benefits. Other profile such as Age ($X^2 = 8.83$, $df = 9$, $p = .453$) and Gender ($X^2 = 2.08$, $df = 3$, $p = .556$) has no significant association to the said benefit.

Table 6
Significant association between Profile and Socio-Cultural Benefits of Ilug Kamalig

Significant association between Profile and Socio-Cultural Benefits of Day Karamag						
Profile	Strongly Agree	Agree	Disagree	X ²	df	p
Residence						
Porac	6	12	2	17.0	8	.030
Angeles City	9	3	1			
Other Municipalities of 2 nd District	4	11	0			
Other Cities/Municipalities of Pampanga	8	1	0			
Outside Pampanga	2	1	0			
Age						
18-20	6	10	1	4.03	6	.672
21-30	14	11	1			
31-40	3	4	1			
above 40	6	3	0			
Gender						
Male	14	14	2	0.368	2	.832
Female	15	14	1			

Table 6 presents the Chi square test of association between Profile and Socio-cultural benefits of Ilug Kamalig. In the above given results, it is shown that only the Residence (= 17.0, df = 8, p = .030) of the respondents has significant association to the Socio-cultural benefits of Ilug Kamalig. This means that residents near the Ilug Kamalig experience its socio-cultural benefits now that it emerges as an ecotourism destination. No significant association is found between Age (= 4.03, df = 6, p = .672), Gender (= .368, df = 2, p = .832) and socio-cultural benefits.

3. Conclusion

This chapter presents the overall summary of the findings and conclusions based on the data analyzed in the previous chapter. To help future research, recommendations were made as an outgrowth in accordance with the conclusions and purpose of the study of this study.

From the results of the study, conclusion drawn as follows:

1. In terms of demographic segmentation, most of the tourists who usually experience and enjoy the natural beauty offered by the Ilug Kamalig came from Porac and nearby municipalities and are mostly aged 21 to 30 years old.
2. Predominantly, participants agreed that the Economic Benefits of Ilug Kamalig were shared and exercised in the area such as it provides opportunities for the youths to participate and contribute to the development not only the site but also the community where it is located as such actively joining cleaning operation and showing continuous support to the site by visiting and referring it to other people. Also, it is the perfect place to build small businesses and surely help the residents or locals to generate and increase their income. This clearly illustrates that participants believe that Ilug Kamalig being a prospect of

Ecotourism will create job opportunities for the locals in the area. However, it also raises the absence of souvenir shops in the area.

3. Participants generally answer “Strongly Agree” on the shared Socio-cultural Benefits of Ilug Kamalig being an emerging Ecotourism destination. It shows the positive feedback of respondents during their stay in Ilug Kamalig. Specifically, the most agreed statements are the site will be highly recommended and it will be referred by tourists to other people looking for a suitable place to relax, it ensures everyone’s safety and security without any worry while enjoying leisure time, and that it makes a positive contribution to the quality of life of tourists as it believes to improve health and relieve from stress or any negative mental state. On the other hand, some parts are suggested to be improved such as producing more local foods, accommodations and creating more activities to meet the needs and wants of the tourists in order to satisfy them during their stay.

4. There is a significant relationship between the Economic benefits and the Socio-cultural benefits of Ilug Kamalig. Whereas the Economic benefits of the Ilug Kamalig go higher, its Socio-cultural benefits also go higher – promoting a deeper influence on the social and cultural traditions of the municipality of Porac. Hence, Economic benefits are significantly correlated to Socio-Cultural Benefits.

5. There is a significant association between the Residence Profile and Economic Benefits of Ilug Kamalig.

6. There is a significant association between the Residence Profile and Socio-cultural Benefits of Ilug Kamalig.

This research aimed to open new opportunities in terms of the economic and socio-cultural development of Ilug Kamalig in Porac Pampanga: An Emerging Ecotourism Destination. The researchers were convinced that there is a need to determine how the place will promote its culture of gastronomy to the tourists, sustainable practices and conserve the natural resources while enjoying leisure. Therefore, proposing a marketing strategy observed by the researchers is necessary to obtain sustainable tourism development and to effectively introduce Ilug Kamalig as a new ecotourism site to tourists looking for a new environmentally friendly destination.

4. Recommendation

In the light of the finding and conclusions drawn, the following are offered for recommendations:

1. The personnel of Ilug Kamalig should encourage the local community to advertise using digital marketing and create unique products to promote the culture of gastronomy and other cultural practices of Porac that will cater to all generations and other nearby provinces.

2. The LGU and the personnel of Ilug Kamalig should collaborate to create effective marketing strategies to promote the place. Also, formulate programs and projects for the improvement of the local community and potential areas as tourist attractions and destinations and encourage the locals to develop and produce products for souvenirs that they can offer to tourists.

3. Encouraging the locals and personnel of Ilug Kamalig with the collaboration of LGU to create sports activities and build villas to accommodate tourists who want to stay for a few more days. Also, always communicate the regulations and safety protocol with the tourists and appoint security officers to ensure everyone’s safety and security.

4. The researchers proposed a Marketing Plan for Ilug Kamalig.

5. Future researchers may use this study as a basis or assistance for relevant research projects and may improve and continue the proposed marketing plan. To better understand the implication of these results, future studies could address the opportunities for locals to increase the quantity of the attractions and improve quality and enjoy its benefits when discovered new natural attractions in the area. The study may also serve as a reference in conducting a study of similar nature, including possibilities of the Ilug Kamalig as a tourist attraction and destination for sustainable tourism development.

Funding: This research received no external funding

Conflicts of Interest: The authors declare no conflict of interest

Publisher’s Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers.

References

- [1] Abir, T., & Hossein Khan, M. Y. (2022). Importance of ICT Advancement and Culture of Adaptation in the Tourism and Hospitality Industry for Developing Countries. *IGI Global*. <https://doi.org/10.4018/978-1-7998-8165-0.ch003>
- [2] Barone, A. (2022). Marketing Strategy: What It Is, How It Works, How To Create One. *Investopedia*. Retrieved from <https://www.investopedia.com/terms/m/marketing-strategy.asp>
- [3] Scribbr. Retrieved from <https://www.scribbr.com/methodology/likert-scale/?fbclid=IwAR2DHIGHDuMwYKQXRINy35BeSu30VgdXobLpGeLmzWpCF6xZDn8nJrY-Mc8>
- [4] Cetin, M., & Sevik, H. (2016). Assessing Potential Areas of Ecotourism through a Case Study in Ilgaz Mountain National Park. Retrieved from <https://doi.org/10.5772/62573>
- [5] Chaudhuri, S., & Ray, N. (2019). Application of Geospatial Mashups in Web GIS for Tourism Development. *IGI Global*. Retrieved from <https://doi.org/10.4018/978-1-5225-7359-3.ch019>
- [6] Combining ecological and recreational aspects in national park management: A choice experiment application. (2011). Retrieved from <https://doi.org/10.1016/j.ecolecon.2011.02.006>
- [7] Executive Order No. 111, s. 1999 | GOVPH. (1999). Executive Order No. 111, s. 1999 | Official Gazette of the Republic of the Philippines. Retrieved from <https://www.officialgazette.gov.ph/1999/06/17/executive-order-no-111-s-1999/>
- [8] Gallagher K. (2022). What Is Ecotourism? Definition, Examples, and Pros and Cons. *Treehugger*. Retrieved from <https://www.treehugger.com/what-is-ecotourism-definition-examples-5181259>
- [9] Hartog, Z. (2021). What is a Destination Management Organization (DMO) and Why Should Destinations Care? *Solimar International*. Retrieved from <https://www.solimarinternational.com/what-is-a-destination-management-organization-dmo-and-why-should-destinations-care/>
- [10] Khan, M. M., Siddique, M., Yasir, M., Qureshi, M. I., Khan, N., & Safdar, M. Z. (2022). The Significance of Digital Marketing in Shaping Ecotourism Behaviour through Destination Image. Retrieved from <https://doi.org/10.3390/su14127395>
- [11] Mollenkamp, D., T. (2022). What is Sustainability? How Sustainabilities Work, Benefits, and Example. *Investopedia*. Retrieved from <https://www.investopedia.com/terms/s/sustainability.asp>
- [12] Muresan, I. C., Harun, R., Arion, F. H., Fatah, A. O., & Dumitras, D. E. (2021). Exploring residents' perceptions of the socio-cultural benefits of tourism development in the mountain area. Retrieved from <https://www.mdpi.com/2075-4698/11/3/83#B13-societies-11-00083>
- [13] Pimm, S. L. (2023). conservation. *Encyclopedia Britannica*. Retrieved from <https://www.britannica.com/science/conservation-ecology>
- [14] Repalda, M. D., Osayan, A. & Jubelag, R. A. (2011). Pook ni Mariang Makiling: Its Current Status and Potential Growth as an Ecotourism Site. Ani: Letran Calamba Research Report, 1(1). Retrieved from <https://ejournals.ph/article.php?id=162>
- [15] Stanciu, M., Popescu, A., Sava, C., Moise, G., Nistoreanu, B. G., Rodzik, J., & Bratu, I. A. (2022). Youth's perception toward ecotourism as a possible model for sustainable use of local tourism resources. *Frontiers in Environmental Science*. Retrieved from <https://www.frontiersin.org/articles/10.3389/fenvs.2022.940957/full>
- [16] The four pillars of sustainability. (n.d.). Retrieved from <https://info/blog>
- [17] The World Tourism Organization (UNWTO, 2002), Ecotourism and Protected areas | UNWTO. (n.d.). Retrieved from <https://www.unwto.org/sustainable-development/ecotourism-and-protected-areas>
- [18] Tourism and Sustainability: Development, globalisation and new tourism in the Third World - PDF Drive. (n.d.). Retrieved from <http://www.pdfdrive.com/tourism-and-sustainability-development-globalisation-and-new-tourism-in-the-third-world-e158190712.html>
- [19] Tourist preferences for ecotourism in rural communities adjacent to Kruger National Park: A choice experiment approach. (2011). Retrieved from <https://doi.org/10.1016/j.tourman.2011.02.016>
- [20] Tourist's engagement in eco-tourism: A review and research agenda. (2023). Retrieved from <https://doi.org/10.1016/j.jhtm.2023.01.002>
- [21] Tseng, M. L., Lin, C., Lin, C. W. R., Wu, K. J., & Sriphon, T. (2019). Ecotourism development in Thailand: Community participation leads to the value of attractions using linguistic preferences. Retrieved from <https://doi.org/10.1016/j.jclepro.2019.05.305>
- [22] Wagle, K. (2020). Research Ethics: Definition, Principles and Advantages. *Public HealthNotes*. Retrieved from <https://www.publichealthnotes.com/research-ethics-definition-principles-and-advantages/>
- [23] Walton, J. K. (2023). tourism. *Encyclopedia Britannica*. Retrieved from <https://www.britannica.com/topic/tourism>
- [24] What do you understand by sustainable practices? (n.d.). Retrieved from <https://byjus.com/question-answer/what-do-you-understand-by-sustainable-practices/>
- [25] What is (not) Ecotourism – GEN – Global Ecotourism Network. (n.d.). Retrieved from <https://www.globalecotourismnetwork.org/what-it-is-not-ecotourism/>
- [26] What Is Ecotourism - The International Ecotourism Society. (n.d.). Retrieved from <https://ecotourism.org/what-is-ecotourism/>
- [27] What is Ecotourism? Definition, Meaning and Examples of Ecotourism. (n.d.). Retrieved from <https://youmatter.world/en/definition/ecotourism/>
- [28] What is Sustainability? (n.d.). *UCLA Sustainability*. Retrieved from <https://www.sustain.ucla.edu/what-is-sustainability/#:~:text=Sustainable%20practices%20support%20ecological%2C%20human,in%20which%20resources%20are%20used.>
- [29] Willingness-to-pay and the perfect safari: Valuation and cultural evaluation of safari package attributes in the Serengeti and Tanzanian Northern Circuit. (2013). Retrieved from <https://doi.org/10.1016/j.ecolecon.2013.10.012>
- [30] Zong, C., Cheng, K., Lee, C. H., & Hsu, N. L. (2017). Capturing Tourists' Preferences for the Management of Community-Based Ecotourism in a Forest Park. Retrieved from <https://doi.org/10.3390/su9091673>