

The effect of service quality, facilities and environmental cleanliness on tourist satisfaction at the fire flies garden tourist attraction, taro tourism village

Ni Wayan Chintia Pinaría¹, Ida Ayu Kalpikawati², Made Artajaya³, I Gusti Agung Febrianto⁴

^{1,2,4}Department of Hospitality, Politeknik Pariwisata Bali, Indonesia

³Department of Tourism, Politeknik Pariwisata Bali, Indonesia

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ABSTRACT

This study aims to analyze the effect of service quality, facilities, and environmental cleanliness on tourist satisfaction at The Fire Flies Garden. This research uses quantitative and qualitative methods, with primary data obtained through a Likert scale-based questionnaire (1-5) to tourists and interviews with managers. The sampling technique used Accidental Sampling with 60 respondents. Data analysis was conducted using multiple linear regression with the help of SPSS. The results showed that service quality, facilities, and environmental cleanliness have a positive and significant influence on tourist satisfaction, both partially and simultaneously. Tourists are satisfied with the services provided, adequate facilities, and environmental cleanliness that is maintained. The research conclusion confirms that these three variables play an important role in improving the tourist experience and sustainability of tourist destinations.

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**Corresponding Author:**

Ni Wayan Chintia Pinaría,
Department of Hospitality,
Politeknik Pariwisata Bali,
Jl. Dharmawangsa, Benoa, Kec. Kuta Sel., Kabupaten Badung, Bali, 80361, Indonesia
Email: tia@ppb.ac.id

1. Introduction

Indonesia is one of the countries that has the best tourist destinations in the world. The diversity of tribes, cultures and customs from Sabang to Merauke makes Indonesia very attractive to be visited by domestic and foreign tourists. One of the popular tourist destinations in Indonesia for tourists to visit is Bali Island. Bali is a unique tourist destination paradise so it is not surprising that Bali has the nickname "The Island of Paradise". The attraction of Bali as a tourist destination is the natural beauty of white sand beaches, lakes, mountains, protected forests, rivers, and green rice fields. In addition, Bali has a wealth of art and culture that involves elements of art, religion, historical relics, local languages, handicrafts, traditional clothing, building architecture and traditional things. Especially in today's digital era, digital experiences and social media also play an important role in shaping traveler expectations and satisfaction. Information spread through digital platforms and social media reviews can influence potential tourists' perceptions of the quality of service, facilities, and environmental cleanliness of a destination. Therefore, an in-depth understanding of how much influence digital and social media experience factors have on tourists' expectations and satisfaction is important to support tourism sustainability, especially in destinations such as The Fire Flies Garden at Taro Tourism Village.

The combination of uniqueness and community life with its famous culture and art forms an authentic tourist village that attracts tourists to visit. The establishment of tourist villages on the island of Bali is one form of implementation of community-based and sustainable tourism development. Community-based tourism is believed to be a pattern that is able to provide economic benefits and equity, environmental preservation, preservation of local culture and community empowerment. Currently, the development of

tourist villages on the island of Bali has increased significantly with a total of 177 tourist villages (Dinas Pariwisata Provinsi Bali, 2021).

One of the developing tourist villages on the island of Bali is Taro Tourism Village. Taro Tourism Village has been established since 459 AD which is located in Tegallalang District, Gianyar Regency, Bali. Taro Tourist Village is one of the oldest villages in Bali which became the forerunner of the formation of Traditional Villages and the subak system in Bali. Taro Tourism Village is closely related to the arrival of Rsi Markandya. As told by Made Puri as Bendesa Adat Taro Village since 1952 "From the story of the elders, it is said that this village exists thanks to Rsi Markandya who came from Java and in his tapanya saw the light from this area.". This light is said to have caused Rsi Markandya to come and want to live in an area that was once called Sarwada. Sarwada stands for Sarwa Ada (everything is available).

Tourist attractions represent a key potential that continues to be developed in Taro Tourism Village. Some of the notable attractions in this area include Lembu Putih, D'Tunggir Natural Park, Semara Ratih & Delodsema Village, The Fire Flies Garden, Tegal Dukuh Camp, Tegal Wedangga, Yeh Pikat River Trekking, and Moringga. At present, the primary focus of tourism development is directed toward several main attractions, such as Lembu Putih, Semara Ratih, The Fire Flies Garden, and Yeh Pikat River Trekking.

In the context of tourism, tourist satisfaction according to Novitasari et al. (2022) is a measurement that is carried out simultaneously (overall satisfaction) because tourism itself is an integrated product unit and has an interrelationship between all satisfying factors. According to Tirtomulyo in (Zaatariyah et al., 2023) to obtain satisfaction, a service marketing developer must pay attention to fulfilling consumer satisfaction. Satisfied consumers will be the pioneers or determinants for the continuity of a service business. Many positive impacts will be obtained by business managers or tourist attractions if tourists are satisfied after visiting, including returning to visit, telling their friends to visit and providing solutions to what is felt for their services. There are various factors that determine tourist satisfaction, namely service quality, facilities, environmental cleanliness and other factors.

Efforts to increase the tourism potential developed in Taro Village must be balanced with an increase in the quality of service at each attraction. The issue of service quality is familiar to tourism. Even according to Amissah et al. (2021), Quality tourism has emerged as a component of the global future, necessitating a proper tourist policy in light of the industry's rapid expansion. The intricacy and globalization of the contemporary competitive landscape in tourism have rendered quality a crucial source of competitive advantage. Merely sustaining economic operations is insufficient; progress is essential for tourism to attain a sustainable future. Customer service, enhancement of efficiency, strategic marketing, benchmarking, and staff training and development are crucial for survival and competitiveness in a dynamic corporate landscape. The definition of service quality according to Darzi et al. (2023) is a way to compare the perception of services received by customers with the services that customers actually expect. This explains that tourism development efforts will run in harmony with the perceptions of tourists. Increasing tourist satisfaction, must also improve service quality. Currently, the managers of tourist attractions in Taro Tourism Village are local people who mostly have educational backgrounds outside of tourism so that the community provides services according to their abilities.

In addition to the importance of service quality, the completeness of facilities at tourist attractions is also an important component of supporting tourist satisfaction while visiting tourist attractions. The availability of adequate supporting facilities is anticipated to enhance tourist comfort, encourage longer visits, and create a positive impression of the destination (Wang & Ye, 2022). The provision of amenities at a tourist site is crucial to satisfy the requirements of visitors throughout their stay. Facilities significantly impact travelers' evaluations of attractions. When these amenities are adequately supplied, it undoubtedly enhances tourists' comfort and satisfaction throughout their visit to the attraction. Currently, the facilities at tourist attractions in Taro Tourism Village are quite good, but in some tourist attractions there are parking lots but they are not neatly arranged, there is still a lack of independent cash advances (ATM) facilities and the number of toilets is still limited.

Another factor that supports tourist satisfaction while visiting tourist attractions is environmental cleanliness. Especially after passing the Covid-19 pandemic which requires every business manager to implement environmental cleanliness. Maintaining cleanliness plays a vital role in ensuring tourist satisfaction, as it enhances the visual appeal of destinations. A clean environment also contributes significantly to the overall comfort of the travel experience. Three years ago, precisely in 2018, Taro Tourism Village received the Kalpataru Award from the President of the Republic of Indonesia through the Ministry

of Environment. So that after three years of the award, it is now important to know the perceptions of tourists visiting tourist attractions in Taro Tourism Village towards environmental cleanliness and its influence on satisfaction.

One of the famous tourist attractions in Taro Tourism Village is The Fire Flies Garden. The Fire Flies Garden is a firefly conservation park located in Taro Village, Tegallalang District, Gianyar Regency, Bali. The garden was established with the aim of preserving the natural habitat of fireflies in a 6x30 square meter organic rice field area. Visitors can enjoy the unique experience of seeing fireflies in person, especially at dusk to night when fireflies are most active. In addition, the park offers various activities such as trekking through the rice fields, cycling around the village, visiting famous temples, and learning about traditional Balinese farming.

The Fire Flies Garden in Taro Village provides various facilities to enhance visitor comfort. A dining area for travelers who want to enjoy local dishes after their activities. The Fire Flies Garden also offers homestay facilities for travelers who want to stay and experience Balinese rural life for longer. With these facilities, visitors can enjoy interesting activities such as firefly conservation, cycling around the village, trekking through the forest, and visiting famous temples around the area.

The role of local culture and community wisdom is very important in increasing tourist satisfaction at The Fire Flies Garden, Taro Tourism Village. The authenticity of the tourism experience offered through local traditions, ecological wisdom, and community hospitality creates a deep emotional bond for tourists. Culturally-based environmental conservation practices, such as organic farming and the Tri Hita Karana philosophy, not only preserve the fireflies' habitat, but also provide comfort and satisfaction for visitors. In addition, direct interaction with local communities through homestays, cultural stories and traditional activities makes tourists feel more connected and contribute positively to cultural preservation. Therefore, the integration of local culture is an important element in creating an authentic, memorable and sustainable tourism experience.

Based on the results of interviews with the Village Head and the Manager of The Fire Flies Garden, that until now there has been no survey or research on the satisfaction of tourists visiting Taro Tourism Village or tourist satisfaction at The Fire Flies Garden. In order to develop tourist attractions in Taro Tourism Village, especially in The Fire Flies Garden, a deep understanding of the factors that influence tourist satisfaction is needed. Hence, this research seeks to examine how service quality, available facilities, and environmental hygiene influence tourist satisfaction at The Fire Flies Garden. The results of this study are expected to provide insight for tourist attraction managers in improving service quality, improving facilities, and maintaining environmental cleanliness in order to increase the positive experience of tourists and support the sustainability of tourism in Taro Tourism Village.

2. Research Method

This research was conducted at The Fire Flies Garden, which is one of the tourist attractions in Taro Tourism Village, Tegallalang District, Gianyar Regency. The types of data used in this study are quantitative and qualitative data. Quantitative data was obtained through distributing questionnaires to tourists using a Likert scale (1-5) to measure service quality, facilities, environmental cleanliness, and tourist satisfaction. Meanwhile, qualitative data was obtained through observations and interviews with the manager of The Fire Flies Garden to obtain in-depth information about the management and perception of tourists towards this tourist attraction.

The data sources in this study consist of primary data. Primary data was obtained directly from respondents through distributing questionnaires to tourists who were visiting The Fire Flies Garden. The population in this study were all tourists visiting The Fire Flies Garden, with the sampling technique using the Accidental Sampling method, namely selecting respondents who were found at random locations. The number of samples used refers to the opinion of Hair et al. (1998), which states that the minimum sample size for regression analysis is 15 to 20 times the number of variables used. Taking into account the four variables in this study, the minimum sample size required is 60 respondents. In this study at The Fire Flies Garden, efforts can be made to enhance representativeness by collecting data over a range of days and times (e.g., weekdays and weekends, mornings and evenings) and ensuring that a diverse range of tourists—in terms of age, gender, nationality, and purpose of visit—are included.

To minimize response bias in the questionnaires, the survey was designed with clear, neutral, and non-leading statements. Prior to distribution, the questionnaire was piloted with a small group of tourists to ensure clarity and avoid misinterpretation. Respondents were also informed that their responses would remain anonymous and confidential, encouraging honest and unbiased feedback. During interviews, the researcher applied open-ended, non-directive questioning techniques and maintained a neutral stance to reduce interviewer bias and allow participants to express their views freely. Additionally, data triangulation was applied by comparing results from surveys, observations, and interviews to enhance the validity and reliability of findings.

The data collection methods used in this research include questionnaire distribution to tourists and semi-structured interviews with the management. To analyze the influence of independent variables on the dependent variable, this study utilizes multivariate linear regression. The model aims to assess the relationship between service quality, facilities, and environmental cleanliness on tourist satisfaction at The Fire Flies Garden. Additionally, the coefficient of determination (R^2) is applied to measure how much of the variation in tourist satisfaction can be explained by the independent variables. The partial t-test assesses the significance of individual independent factors, whereas the F-test evaluates the collective impact of independent variables on the dependent variable. The analysis of data in this study was performed with the SPSS software to achieve more precise and methodical outcomes.

3. Result and Discussion

Results

From the results of research conducted on 60 tourists, a description of the characteristics according to gender, age, profession, status, education can be found. Table 1 below will explain in detail the characteristics of respondents who have filled out this research questionnaire, as follows:

Table 1. Characteristics of respondents who have visited fire flies

No	Characteristics	Options	Frequency	Percentage (%)
1	Gender	Male	25	41,7
		Female	35	58,3
	Total		60	100
2	Age	< 20 years	15	25
		21-30 years	24	40
		31-40 years	11	18,4
		41-50 years	8	13,3
	> 50 years	2	3,3	
Total		60	100	
3	Respondent Occupation	Student	22	36,7
		ASN	6	10
		Housewife	2	3,3
		Private Employee	18	30
		Self-employed	10	16,7
	Others	2	3,3	
Total		60	100	
4	Last Education	SMA	8	13,3
		Diploma	27	45
		Bachelor	24	40
		Master	1	1,7
Total		60	100	

The table above explains the characteristics of respondents based on gender, obtained fewer male respondents with a total of 25 people with a percentage of 41.7% compared to the number of women as many as 35 people with a percentage of 58.3%. This shows that tourists who want to visit The Fire Flies Garden to see fireflies are dominated by women. Furthermore, the average age of respondents is the age range of 21-30 years, 24 people with a percentage of 40%, with the age range of 21-30 years the characteristics of respondents are more likely to come to Taro Tourism Village to visit The Fire Flies Garden with the aim of having fun or wanting to see firefly habitat. Respondents' occupations tend to be dominated by students as many as 22 people with a percentage of 36.7% and private employees as many as 18 people with a percentage of 30%. Finally, the last education of respondents was dominated by respondents with the last diploma as many as 27 people with a percentage of 45%.

Respondents' assessment of the Fire Flies Garden tourist attraction, the table below describes the respondents' answers to the research variables and their understanding as follows:

Table 2. Average value of fire flies tourism attraction

Variables	Statement Item	Respondent's Answer					Total Score	Average
		SS 5	S 4	N 3	TS 2	STS 1		
Service Quality (X1)	Question item number 1	7	24	16	13	0	205	3.42
	Question item number 2	12	37	8	2	1	237	3.95
	Question item number 3	14	39	6	1	0	246	4.10
	Question item number 4	14	42	3	1	0	249	4.15
	Question item number 5	15	35	8	2	0	243	4.05
	Question item number 6	14	36	10	0	0	244	4.07
	Question item number 7	21	32	7	0	0	254	4.23
	Question item number 8	22	25	7	6	0	243	4.05
	Question item number 9	19	26	13	2	0	242	4.03
	Question item number 10	13	34	11	2	0	238	3.97
	Question item number 11	10	26	15	8	1	216	3.60
	Question item number 12	5	25	19	11	0	204	3.40
	Average							3.92
Facilities (X2)	Question item number 1	31	20	7	0	2	258	4.3
	Question item number 2	22	30	5	0	3	248	4.13
	Question item number 3	21	23	11	1	4	236	3.93
	Question item number 4	25	23	8	2	2	247	4.12
	Question item number 5	19	24	14	3	0	239	3.98
	Question item number 6	23	25	9	1	2	246	4.10
	Question item number 7	23	24	10	3	0	247	4.12
	Question item number 8	26	23	8	3	0	252	4.20
	Question item number 9	26	20	11	1	2	247	4.12
	Average							4.11
Environmental Hygiene (X3)	Question item number 1	18	28	11	1	2	239	3.98
	Question item number 2	13	30	14	1	2	231	3.85
	Question item number 3	18	28	11	1	2	239	3.98
	Question item number 4	14	33	11	0	2	237	3.95
	Question item number 5	13	30	14	1	2	231	3.85
	Question item number 6	13	30	13	1	3	229	3.82
	Average							3.91
Traveler Satisfaction (Y)	Question item number 1	26	15	15	1	3	240	4
	Question item number 2	21	26	8	3	2	241	4.02
	Question Item Number 3	34	23	1	0	2	267	4.45
	Average							4.16

The table above shows the respondents' assessment of the fire flies tourist attraction. The data tabulation above lists the respondents' assessment of 4 aspects, namely service quality, facilities, environmental cleanliness and tourist satisfaction. Each aspect of the assessment contains the highest to lowest value seen through the average assessment given by research respondents.

The first aspect is service quality. The highest value for the service quality variable is in statement item no. 7 obtaining an average value of 4.23, with the statement item being "The Fire Flies Garden employees are swift in helping tourists". Empirically, it is explained that the services provided by officers and the community who participate in providing services and managing this fire flies tourist attraction provide a sense of security, comfort and serve tourists as well as possible, so that tourists feel the benefits and readiness of the services provided. These efforts are made with the aim of producing tourist satisfaction and comfort. Furthermore, the lowest value is found in statement item no. 12 obtaining an average value of 3.40 with the statement item being "I find it easy to submit complaints to employees of The Fire Flies Garden". Empirically, it is explained that there is still a lack of efforts or facilities to accommodate complaints that tourists want to give, so that the suggestions and complaints given by tourists so far still cannot be accommodated properly by tourists. The tabulation results regarding service quality are in line with the theory according to Sakti et al. (2021) which explains that service quality is a way to compare the perception of services received by customers with the services that customers actually expect. This theory is also supported by previous research by Islamy et al. (2022) This indicates that perceived value plays a role in influencing both tourist satisfaction and their loyalty to the destination. Furthermore, the findings demonstrate that service quality significantly contributes to visitor satisfaction.

The second aspect is facilities, the highest value for the variable facilities available at the fire flies tourist attraction is in statement item no. 1 obtaining an average value of 4.3, with the statement item being “parking facilities at The Fire Flies Garden are adequate”. Empirically, it is explained that the facilities provided by the manager of the fire flies tourist attraction aim to support the comfort of tourists. Efforts to provide adequate and safe parking are so that tourists with groups and those who bring private vehicles can feel comfortable and safe. These efforts are made with the aim of producing tourist satisfaction and comfort. Furthermore, the lowest value is in statement item no. 3 obtaining an average value of 3.93 with the statement item being “souvenir or gift shops are available”. Empirically, it can be explained that directly at this fire flies tourist attraction it is not yet available, so this can affect the experience and satisfaction of tourists. The tabulation results regarding facilities are in line with the theory according to Garjan et al. (2023) emphasize that tourist facilities refer to various amenities and their completeness, which support tourists in resting, relaxing comfortably, and staying overnight during their visit to a destination. This concept is reinforced by Sabilillah & Usman (2021), whose research found that facilities have a partially positive and significant impact on visitor satisfaction.

The third aspect, namely environmental cleanliness, the highest value for the environmental cleanliness variable at the fire flies tourist attraction is found in statement items no. 1 and 3 with each obtaining an average value of 3.98, with the statement items being “the toilet at Fire Flies Garden is clean”, and “the environmental conditions of The Fire Flies Garden are clean”. Empirically explained that environmental cleanliness at the fire flies tourist attraction has been felt well by tourists. Respondents gave an assessment that overall environmental cleanliness was well implemented. These efforts are made with the aim of producing tourist satisfaction and comfort. Furthermore, the lowest value is in statement item no. 6 obtaining an average value of 3.82 with the statement item being “clean water is available”. Empirically, it can be explained that there are still 13 respondents who gave undecided answers to the cleanliness of the water at the fire flies tourist attraction, 1 person who answered disagree and 3 people answered strongly disagree. However, overall the respondents gave a good assessment of environmental cleanliness at the fire flies tourist attraction. The tabulation results regarding environmental cleanliness are in line with the theory according to Fuentes & Baloch (2022) which explains that the environment is a surrounding situation that affects the development and behavior of living things. Everything around humans that affects the development of human life both directly and indirectly. Environmental cleanliness is a state free from dirt, including dust, garbage, and odors. This theory is also supported by previous research by Zhang et al. (2023) which explains that all tourists who come and visit the tourist area have their own responsibility to maintain the quality of existing cleanliness. Because a comfortable tourist destination starts from good quality hygiene.

The fourth aspect is tourist satisfaction, the highest value for the tourist satisfaction variable on the fire flies tourist attraction is in statement item no. 3 by obtaining an average value of 4.45, with the statement item being “I am willing to recommend The Fire Flies Garden to friends / relatives”. Empirically, it is explained that tourists who have visited the fire flies tourist attraction by receiving aspects of service quality, facilities and good environmental cleanliness and being able to give a good impression to tourists, of course this has a positive impact, so that tourists are willing to recommend the fire flies garden. Furthermore, the lowest value is in statement item no. 1 obtaining an average value of 4 with the statement item being “I feel satisfied visiting The Fire Flies Garden”. Empirically, it can be explained that there are still 15 respondents who gave undecided answers after visiting the fire flies tourist attraction, 1 person who answered disagree and 3 people answered strongly disagree. However, overall the respondents gave a good assessment of tourist satisfaction at the fire flies tourist attraction. This tourist satisfaction arises from the expectations that tourists have that can be met with what is provided by the manager of the fire flies garden tourist attraction. This is in line with the theory from Kim & Richardson in (Baruah & Chatterjee, 2024) which explains that tourist satisfaction is a post-purchase attitude formed through a mental comparison of the quality of products and services that customers expect to receive from the exchange.

Furthermore, multiple linear regression is used to examine the linear relationship involving two or more variables. In this study, it is applied to assess the influence of three independent variables service quality, facilities, and environmental cleanliness on tourist satisfaction at The Fire Flies Garden. This analytical method aims to determine the nature and significance of the relationship between the independent and dependent variables, as well as to predict changes in tourist satisfaction based on variations in the independent variables.

Table 3. Results of multiple linear regression analysis of the effect of service quality, facilities and environmental cleanliness on tourist satisfaction at the fire flies garden tourist attraction

Model	Coefficients ^a				
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	,639	,400		1,596	,116
Service Quality	-,004	,115	-,002	-,032	,025
Facilities	,396	,133	,423	2,971	,004
Environmental Hygiene	,409	,130	,446	3,137	,003

a. Dependent Variable: Traveler Satisfaction

b. R Square : 0,702

c. F Statistik : 44,066

d. Signifikansi Uji F : 0,000

According to the findings of the multiple linear regression study displayed in Table 5.10, the structural equation can be formulated as follows:

$$KW = 0.639 - 0.004 KP + 0.396 F + 0.409 KL + e$$

The regression coefficient for the service quality variable is negative, with a t-test significance value below 0.05. The facility variable exhibits a positive regression coefficient, also with a t-test significance value below 0.05, while the environmental cleanliness variable is positive, with a t-test significance value under 0.05. This indicates that the variables of service quality, facilities, and environmental cleanliness have a substantial correlation with visitor satisfaction. A simultaneous link exists among service quality, facilities, and environmental cleanliness for visitor satisfaction, with a significance value of 0.000, which is less than 0.05. The total determination value (R Square) of 0.702 signifies that 70.2% of the variance in tourist satisfaction is attributable to variations in service quality, facilities, and environmental cleanliness, while the remaining 29.8% is influenced by extraneous factors not encompassed in the regression model.

Discussion

Based on the results of the regression coefficient table that the quality of service produces a positive significance value and has a significant effect which is known based on the results of the significance value of the research results obtaining a value smaller than the value, so that H₀ is rejected, which means that there is an influence of the service quality variable on tourist satisfaction visiting The Fire Flies Garden. Empirically, it is explained that the services provided by officers and the community who participate in providing services and managing tourist attractions are able to instill trust in tourists and provide a sense of security, comfort when serving and guiding tourists visiting tourist attractions. In addition to this, it can be seen from the neatness of the guide or manager that the quality provided is able to provide satisfaction for tourists, so that tourists feel the benefits and readiness of the services provided. These efforts are made with the aim of being oriented towards tourist satisfaction and comfort. This explanation is supported by the theory according to Sakti et al. (2021) which explains that service quality is a way to compare the perception of services received by customers with the services that customers actually expect. Giao et al. (2021) explains that service quality is a word that service providers share is something that is done well. This theory is also supported by previous research by Damanik & Yusuf (2022) It elucidates that perceived value influences tourist satisfaction and location loyalty. The findings of this study indicate that service quality significantly influences tourist satisfaction.

Based on the results of the regression coefficient table, the facility produces a positive significance value and has a significant effect, which is known based on the results of the significance value of the research results obtained a value smaller than the value, so that H₀ is rejected, which means that there is an influence of the facility variable on tourist satisfaction visiting The Fire Flies Garden. Empirically, it is explained that the facilities provided by the manager of the fire flies tourist attraction aim to support the comfort of tourists. Efforts to provide parking, information board instructions and clean toilets with the aim that tourists can feel comfortable and safe. These efforts are made with the aim of producing tourist satisfaction and comfort. This explanation is supported by the theory according to Han et al. (2021) It asserts that tourist facilities encompass diverse sorts of amenities and their adequacy, enabling tourists to rest, relax, and stay overnight peacefully during their visit to a destination. According to Meidina et al. (2022) asserts that tourist facilities encompass the essential and fundamental amenities necessary for the sustenance and advancement of tourism services for visitors. Tourist facilities are components within or associated with places that enable visitors to reside in these locations to experience or engage in the available attractions.

This theory is also supported by previous research by Xiangyu et al. (2022) The facilities variable has a favorable and considerable impact on visitor satisfaction.

Based on the results of the regression coefficient table that environmental cleanliness produces a positive significance value and has a significant effect which is known based on the results of the significance value of the research results obtaining a value smaller than the value, so that H_0 is rejected, which means that there is an influence of the environmental cleanliness variable on tourist satisfaction visiting The Fire Flies Garden. Empirically, it is explained that environmental cleanliness at the fire flies tourist attraction has been felt well by tourists. Respondents gave an assessment that overall environmental cleanliness was well implemented. These efforts are made with the aim of producing tourist satisfaction and comfort. This can be seen from the cleanliness of toilets and environmental cleanliness and in each tourist attraction in The Fire Flies Garden area. This explanation is supported by the theory according to Lasarudin et al. (2022) The environment is a contextual setting that influences the growth and behavior of organisms. All factors surrounding humans that influence the progression of human existence, both directly and indirectly. Environmental cleanliness denotes a condition devoid of contaminants, encompassing dust, refuse, and unpleasant scents. This theory is also supported by previous research by Zulvianti et al. (2022) which explains that all tourists who come and visit the tourist area have their own responsibility to maintain the quality of existing cleanliness because a comfortable tourist destination starts from good quality hygiene. Based on the results of the regression coefficient table that simultaneously the quality of service, facilities and environmental cleanliness produces a positive significance value and has a significant effect which is known based on the results of the significance value of the research results obtained a value smaller than the value, so that H_0 is rejected, which means that there is an influence of the variables of service quality, facilities and environmental cleanliness simultaneously on tourist satisfaction visiting The Fire Flies Garden. Empirically it is explained that tourists who have visited the fire flies tourist attraction, have received aspects of service quality, facilities and good environmental hygiene and the manager has been able to give a good impression to tourists, of course this has a positive impact, so that tourists are willing to visit the area again to The Fire Flies Garden. Overall, the respondents gave a good assessment of tourist satisfaction at The Fire Flies Garden. Tourist satisfaction has been one of the main areas of tourism research for more than four decades. Cherapanukorn & Sugunnasil (2022) state that consumer satisfaction is a cognitive state of the buyer who is sufficiently or insufficiently rewarded for the sacrifices he has experienced. This tourist satisfaction arises from the expectations that tourists have that can be met with what is provided by the manager of The Fire Flies Garden tourist attraction. This is in line with the theory from Sahabuddin et al. (2021) It elucidates that tourist contentment is a post-purchase disposition established through a cognitive evaluation of product quality and services that customers expect to receive from the exchange.

4. Conclusion

The analysis and discussion indicate that service quality, facilities, and environmental cleanliness positively and significantly influence tourist satisfaction at The Fire Flies Garden attraction. Good service quality contributes significantly to increasing tourist satisfaction, indicating that friendly and responsive interactions from officers are instrumental in creating a pleasant visiting experience. In addition, adequate facilities also have a positive impact on tourist satisfaction, where the availability and quality of good facilities increase comfort and provide a more memorable experience. Environmental cleanliness also has a significant influence on tourist satisfaction, considering that a clean and well-maintained environment creates a comfortable atmosphere and supports a more optimal tourist attraction. Overall, service quality, facilities, and environmental cleanliness play an important role in building the satisfaction of tourists visiting The Fire Flies Garden.

Based on these findings, there are several suggestions that can be implemented to increase tourist satisfaction. In the aspect of service quality, it is recommended that training be conducted for employees to be more proactive in asking about guest experiences and receiving complaints in a friendly and responsive manner. This can increase more positive interactions between officers and tourists. In terms of facilities, it is recommended that this tourist attraction provides and sells souvenirs derived from local products, such as handicrafts or regional specialties. This step not only increases the attractiveness for tourists but also supports the local economy. Meanwhile, on the environmental hygiene aspect, it is important to ensure the availability of clean water facilities at various strategic points, such as toilets, dining areas, and places of worship, so that tourists feel more comfortable during their visit. With the implementation of these suggestions, it is expected

that The Fire Flies Garden tourist attraction can enhance the quality of its services and amenities to deliver a more gratifying experience for guests.

The results of this study have important implications for the marketing and branding of The Fire Flies Garden as a leading tourist destination in Bali. Since the findings highlight that service quality, facilities, and environmental cleanliness significantly influence tourist satisfaction, these aspects can be strategically emphasized in branding messages to attract potential visitors. For instance, marketing campaigns can showcase the garden's friendly and responsive staff, well-maintained and comfortable facilities, and clean, eco-friendly environment—all of which align with the expectations of today's experience-driven travelers. Additionally, emphasizing the integration of local culture through souvenir products and eco-conscious practices can strengthen the brand's appeal to both domestic and international tourists who value authenticity and sustainability.

To explore tourist satisfaction more holistically, future research could benefit from qualitative approaches, such as ethnographic studies that observe tourist behavior and interactions in natural settings. This method would provide deeper insight into how tourists engage with the environment and staff, what emotions they experience, and what cultural or personal factors shape their visit. Additionally, social media sentiment analysis could be used to examine reviews, posts, and comments left by tourists online, offering a rich, real-time perspective on their feelings, expectations, and suggestions. These qualitative dimensions would complement quantitative findings and offer tourism managers a more comprehensive foundation for improving visitor experiences.

References

- Amissah, E. F., Addison-Akotoye, E., & Blankson-Stiles-Ocran, S. (2021). Service quality, tourist satisfaction, and destination loyalty in emerging economies. In *Marketing tourist destinations in emerging economies: Towards competitive and sustainable emerging tourist destinations* (pp. 121–147). Springer.
- Baruah, A., & Chatterjee, D. (2024). Cognitive-Affective-Behavioral Themes in Post-Purchase Attitudes Toward Virtual Tourism Experiences: A Mixed-Method Approach. *International Journal of Tourism Research*, 26(6), e2811.
- Cherapanukorn, V., & Sugunnasil, P. (2022). Tourist attraction satisfaction factors from online reviews. A case study of tourist attractions in Thailand. *Journal of Environmental Management & Tourism*, 13(2), 379–390.
- Damanik, J., & Yusuf, M. (2022). Effects of perceived value, expectation, visitor management, and visitor satisfaction on revisit intention to Borobudur Temple, Indonesia. *Journal of Heritage Tourism*, 17(2), 174–189.
- Darzi, M. A., Islam, S. B., Khurshed, S. O., & Bhat, S. A. (2023). Service quality in the healthcare sector: a systematic review and meta-analysis. *LBS Journal of Management & Research*, 21(1), 13–29.
- Dinas Pariwisata Provinsi Bali. (2021). *Kunjungan Wisatawan Nusantara ke Bali*.
- Fuentes, P. A., & Baloch, M. N. (2022). Examining the role of environmental sustainability measures cleanliness, health, safety, and its impact on visitors satisfaction and perception of service quality at expo 2020, Dubai. *Journal of Advanced Research in Social Sciences and Humanities*, 7(4), 150–163.
- Garjan, H. S., Paydar, M. M., & Divsalar, A. (2023). A sustainable supply chain for a wellness tourism center considering discount and quality of service. *Expert Systems with Applications*, 211, 118682.
- Giao, H. N. K., Vuong, B. N., Phuong, N. N. D., & Dat, N. T. (2021). A model of factors affecting domestic tourist satisfaction on eco-tourism service quality in the Mekong Delta, Vietnam. *Geo Journal of Tourism and Geosites*, 36, 663–671.
- Han, J., Zuo, Y., Law, R., Chen, S., & Zhang, M. (2021). Service quality in tourism public health: trust, satisfaction, and loyalty. *Frontiers in Psychology*, 12, 731279.
- Islamy, M. R., Trisnawati, J. D., & Rahayu, S. (2022). The effect of perceived service quality, perceived value, destination image, attitude to visiting behavior, tourist satisfaction on tourist loyalty. *Journal of Entrepreneurship & Business*, 3(1), 35–48.
- Lasarudin, A., Alvianna, S., Sugeha, A. Z., Hidayatullah, S., & Estikowati, E. (2022). Mediation Effect of Visitor Satisfaction from Cleanliness, Health, Safety, and Environment Sustainable (CHSE) Relationships on Visitor Loyalty at Kaliwatu Rafting Tourist Destinations Batu City. *International Journal of Research in Engineering, Science and Management*, 6(1), 1–7.
- Meidina, A. P., Brahmantyo, H., & Mariati, S. (2022). The Effect of Quality Service and Facilities on Tourist Satisfaction in Marine Tourism (Jatimalang Beach, Purworejo). *TRJ Tourism Research Journal*, 6(2), 218–232.
- Novitasari, D., Asbari, M., & Purwanto, A. (2022). Tourist satisfaction and performance of tourism industries: how the role of innovative work behaviour, organizational citizenship behaviour? *Journal of Industrial Engineering & Management Research*, 3(1).
- Sabilillah, J. U., & Usman, O. (2021). The effect of service quality, price and facilities on visitor satisfaction in Ragunan. *Price and Facilities on Visitor Satisfaction in Ragunan (January 16, 2021)*.
- Sahabuddin, M., Tan, Q., Hossain, I., Alam, M. S., & Nekomahmud, M. (2021). Tourist environmentally responsible

- behavior and satisfaction; Study on the world's longest natural sea beach, Cox's Bazar, Bangladesh. *Sustainability*, 13(16), 9383.
- Sakti, R. F. J., Widiyanto, P., & Susanto, P. C. (2021). Service quality and customer satisfaction increasing loyalty of passengers Ro-Ro Ferry Bakauheni. *Journal of Economics, Management, Entrepreneurship, and Business (JEMEB)*, 1(1), 79–92.
- Wang, G., & Ye, L. (2022). Spatial-temporal pattern of mismatch degree of high-quality tourism development and its formation mechanism in Taihu lake basin, China. *Sustainability*, 14(8), 4812.
- Xiangyu, C., Shiyi, X. U., Chengcai, T., Zhijia, F. A. N., & Xiaoyue, X. (2022). Evaluation and promotion model of tourist satisfaction in ice and snow tourism destinations. *Journal of Resources and Ecology*, 13(4), 635–645.
- Zaatariyah, R., Muslihudin, M., Nurhuda, A., & Sinta, D. (2023). Comparative study of customer satisfaction and service quality at shopee and tokopedia. *Jurnal Ekonomi Lembaga Layanan Pendidikan Tinggi Wilayah I*, 3(2), 48–59.
- Zhang, F., Seshadri, K., Pattupogula, V. P. D., Badrinath, C., & Liu, S. (2023). Visitors' satisfaction towards indoor environmental quality in Australian hotels and serviced apartments. *Building and Environment*, 244, 110819.
- Zulvianti, N., Aimon, H., & Abror, A. (2022). The influence of environmental and non-environmental factors on tourist satisfaction in halal tourism destinations in West Sumatra, Indonesia. *Sustainability*, 14(15), 9185.