

## Toba Community Perceptions of Education, Tourism, Health, and Socio-Religious Issues in Lake Toba

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### ABSTRACT

**Purpose** – Toba Regency is one of the leading of local and foreign tourists destinations in North Sumatra Province. Through good management by the government, the private sector, and the community, this potential can be optimized to improve community welfare. This study aims to measure and evaluate the level of satisfaction of the tourists with the quality of life in various fields of education, tourism, health, agriculture, socio-culture-art, and religion.

**Method** – This research uses a quantitative approach with a survey method. Data were collected through questionnaires distributed to 30 randomly selected respondents in the Toba region.

**Findings** – The results show that improving the quality of education through curriculum development, increasing the capacity of teachers, and providing adequate facilities is very important. Community-based tourism development and infrastructure improvements can boost the local economy. In the health sector, improving access and quality of health services through community-based programs is necessary. Agricultural productivity can be improved through the application of modern technology and crop diversification. In addition, the preservation of local culture and arts as well as improved religious facilities and programs can strengthen social cohesion and the spiritual well-being of the community. This research is expected to provide a comprehensive picture of the quality of life of the Toba people and form the basis for formulating more effective policies to improve the quality of life of the community.

**Keywords:** Toba Community, Education, Tourism, Health, Socio-Religious Issues

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### ABSTRAK

**Tujuan** – Kabupaten Toba merupakan salah satu destinasi wisata lokal dan mancanegara unggulan di Provinsi Sumatera Utara. Melalui pengelolaan yang baik oleh pemerintah, pihak swasta, dan masyarakat, potensi ini dapat dioptimalkan untuk meningkatkan kesejahteraan masyarakat.

**Metode** – Penelitian ini bertujuan untuk mengukur dan mengevaluasi tingkat kepuasan masyarakat Toba terhadap kualitas kehidupan dalam berbagai bidang pendidikan, wisata, kesehatan, pertanian, sosial-budaya-seni, dan keagamaan. Penelitian ini menggunakan pendekatan kuantitatif dengan metode survei. Data dikumpulkan melalui kuesioner yang disebarakan kepada 30 responden yang dipilih secara acak di wilayah Toba.

**Hasil** – Hasil penelitian menunjukkan bahwa peningkatan kualitas pendidikan melalui pengembangan kurikulum, peningkatan kapasitas guru, dan penyediaan fasilitas yang memadai sangat penting. Pengembangan pariwisata berbasis komunitas dan peningkatan infrastruktur dapat meningkatkan ekonomi lokal. Di bidang kesehatan, peningkatan akses dan kualitas layanan kesehatan melalui program berbasis komunitas sangat diperlukan. Produktivitas pertanian dapat ditingkatkan melalui penerapan teknologi modern dan diversifikasi tanaman. Selain itu, pelestarian budaya dan seni lokal serta peningkatan fasilitas dan program keagamaan

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dapat memperkuat kohesi sosial dan kesejahteraan spiritual masyarakat. Penelitian ini diharapkan memberikan gambaran komprehensif tentang kualitas kehidupan masyarakat Toba dan menjadi dasar perumusan kebijakan yang lebih efektif untuk meningkatkan kesejahteraan masyarakat.

**Keywords:** Komunitas Toba, Pendidikan, Pariwisata, Kesehatan, Isu Sosial-Keagamaan

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## INTRODUCTION

Toba Regency is one of several areas that are tourist destinations in North Sumatra Province which has many tourist attractions that need to be developed as an opportunity to increase Regional Original Income. Each region has different tourism potential depending on how the government, private sector and society manage this potential to become an attractive tourist attraction and invite many tourists to visit. The number of visiting tourists has a big impact on tourism development and local revenue for both domestic and domestic tourists. abroad (Nasution, 2019; Siregar dkk, 2018; Sihombing & Hutagalung, 2021).

In the Toba region, efforts to improve the quality of people's lives can be carried out through various fields such as education, tourism, health, agriculture, social-cultural-arts and religion. Education is an important foundation in forming competent and competitive human resources. Improving the quality of education in the Toba area can be done through developing curricula that are relevant to local needs, increasing teacher capacity, and providing adequate educational facilities (Mardhiyah, R. H. et al., 2021).

The tourism sector also has great potential to improve the quality of life of the Toba people. Lake Toba, as one of the leading tourists destinations in Indonesia, can be a driving force for the local economy if managed well. Community-based tourism development can increase community income while preserving local culture. Improving the quality of infrastructure and effective tourism promotion are also very necessary to attract more tourists (Purnamasari, 2011; Yanti, 2020).

In the health sector, increasing access and quality of health services is very important to ensure the welfare of the community, especially in Toba. The importance of improving health facilities, providing competent medical personnel, and health education programs need to be carried out in a sustainable system. Community-based health programs, such as posyandu and mobile health services, can also speed up access to health services in remote areas in Toba (Faisal, 2009).

Agriculture is one of the main sectors that supports the economy of the Toba people. Increasing agricultural productivity can be achieved through the application of modern agricultural technology, farmer training, and providing access to wider markets. Crop diversification and increasing the added value of agricultural products

can increase farmers' income and reduce dependence on certain commodities (Martauli et al., 2021).

The social-cultural-arts and religious fields also have an important role in improving the quality of life of the Toba people. Preserving local culture and art not only maintains cultural identity but can also attract tourists. Community-based programs involving arts and culture can strengthen social cohesion and increase a sense of local pride. Meanwhile, improving religious facilities and inclusive religious programs can support social harmony and spiritual well-being in society (Lubis, 2020; Firmando, 2021; Tjilen et al., 2023).

According to Samosir et. Al (2016), the differences in education levels, limited job opportunities, and family income. The community is expected to maintain cleanliness and safety for visitors, food and beverage vendors, souvenir sellers, tour guides, hotel rentals and service bureaus.

This research aims to measure and evaluate the level of satisfaction of the local and foreign tourists with the quality of life in various fields, namely education, tourism, health, agriculture, socio-cultural-arts and religion. It is hoped that this research can provide a comprehensive picture of the quality of life of the Toba people in various fields and become the basis for formulating more effective policies to improve the welfare of society as a whole.

## **METHOD**

This research uses a quantitative approach with survey methods to measure the level of satisfaction of the Toba people with the quality of life in the fields of education, tourism, health, agriculture, social-cultural-arts and religion. Data will be collected through a questionnaire distributed to randomly selected respondents in the Toba area

The population in this study was the entire Toba community. The targeted sample was 30 respondents to obtain representative data. The questionnaire consists of six main sections, each of which covers the fields of Education, Tourism, Health, Agriculture, Social Culture, Arts and Religion, with a list of questions as follows into Table 1.

The data collected will be analyzed using descriptive statistics to describe the level of community satisfaction as a whole and by sector. Statistical analysis T-test and one-way Analysis of Variance (Anova), will be used to test differences in satisfaction levels between different demographic groups.

## **RESULTS AND DISCUSSION**

University of North Sumatra Independent Student Exchange (PMM4) students through the Nusantara Module program conducted a survey to find out how the people around Lake Toba live in the fields of education, tourism, health, agriculture, socio-cultural-arts and religion. Figure 1. Interview conducted by USU PMM4 students

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Lake Toba

**Table 1.** Questionnaire List in Toba

Section	Questions
Education	How do you assess the quality of education in Toba?
	Are educational facilities in Toba adequate?
	How often do you participate in training activities or educational seminars in Toba?
	Do you feel that children in Toba are getting a decent education?
	Are there any scholarship programs available for students in Toba?
Travel	How satisfied are you with tourism services in Toba?
	Is tourist information in Toba easily accessible to tourists?
	Are tourist facilities in Toba adequate?
	How often do you visit tourist attractions in Toba?
	How do you assess the tourism potential in Toba?
Health	How do you assess the Toba people's awareness of the importance of health?
	Are public health programs (such as vaccination, education) running well in Toba?
	How often do you or your family visit the health center in Toba?
	Are health facilities in Toba adequate?
	How would you rate the quality of health services in Toba?
Agriculture	How do you assess the access of farmers in Toba to markets to sell their agricultural products?
	Is agricultural training and extension available for farmers in Toba?
	How satisfied are you with the government's support for the agricultural sector in Toba?
	Has modern agricultural technology been implemented in Toba?
	How would you assess the agricultural conditions in Toba?
Socio-Culture-Art	Is there enough space or facilities for artistic activities in Toba?
	How do you assess the government's role in promoting culture and arts in Toba?
	Do you feel that local traditions and culture in Toba are still well maintained?
	How often do you attend cultural or arts events in Toba?
	How do you assess cultural diversity in Toba?
Religion	Are there enough religious education programs for children and teenagers in Toba?
	How do you assess government support for religious activities in Toba?
	Are the worship facilities in Toba adequate?
	How often do you participate in religious activities in Toba?
	How do you assess inter-religious harmony in Toba?



Figure 1. Interview conducted by USU PMM4 students

After conducting a survey of the community around Lake Toba, the response given by the community around Lake Toba to this data collection activity was very good and their hope is that in the future the quality of life in the fields of education, tourism, health, agriculture, social-cultural-arts and religion will get better. Figure 2. Responses given by the community to student surveys.



Figure 2. Responses given by the community to student surveys.

According to Riadi (2019), Ecotourism is one form tourism that encourages conservation efforts and sustainable development, combining environmental conservation with economic development, opening up new employment land for local communities, and provide environmental education towards tourists.

Table 2 was described of T-test between gender, age, education, tourism, healthy, agriculture, social cultural, and religious such as described below.

Table 2. T-Test Results One Sample Statistics

	Amount	Average	Std. Deviation	Std. Average Error
Gender	29	1.4138	.50123	.09308
Age	29	2.5517	.94816	.17607
Education	29	2.8897	.70627	.13115
Tourism	29	2.8897	.70627	.13115
Healthy	29	2.0828	.64035	.11891
Agriculture	29	2.6138	.79630	.14787
Socio-cultural	29	2.0414	.42554	.07902
Religious	29	2.1586	.60799	.11290

Source: Processed Data (2024).

T-Test results show varying levels of satisfaction in various fields. Education and tourism have the highest levels of satisfaction, indicating that these two sectors have succeeded in meeting people's expectations. On the other hand, health and social

culture require more attention to improve service quality and cultural preservation. The agricultural sector also shows positive results, but still requires improvements in technology and market access. Integrated efforts between the government, the private sector and the community are very important to improve the quality of life in Toba. These results show that the gender distribution of respondents is quite balanced. With a low standard deviation, variability in gender data is small, indicating that the majority of respondents have a nearly even gender distribution. The average age of respondents is in the middle category. The relatively high standard deviation indicates considerable variation in respondents' ages, reflecting the diversity of ages among survey participants.

The level of satisfaction with education shows a high average value, indicating that respondents are quite satisfied with the quality of education in the Toba area. This is in line with a study by Sutiono (2021) which states the importance of improving the quality of education to form competent human resources. Satisfaction with the tourism sector has the same average as education. This shows that tourism, especially in the Lake Toba area, has great potential in improving the local economy and people's quality of life. This is in accordance with Mangiring et al., (2019) who stated that the agricultural sector also showed quite high satisfaction, indicating that the majority of respondents felt that agricultural productivity was quite good.

The average satisfaction with health services shows a lower figure compared to education and tourism. A lower standard deviation indicates a more homogeneous perception among respondents regarding the health sector. Increasing access and quality of health services is still an important challenge that must be overcome (Pamungkas & Mulyanti, 2023).

Satisfaction with the socio-cultural sector is relatively low, indicating the need for more attention to preserving local culture and arts that can attract tourists and strengthen social cohesion. The religious sector shows higher satisfaction than socio-cultural but still lower than education and tourism. This is in accordance with Amalki & Fahraini (2023) who stated that improving religious facilities and inclusive religious programs can support social harmony and spiritual well-being of society.

According to Sylviani et al (2023) and Wiweka et al. (2020), ecotourism development program requires the cooperation and active role of the members parties actually in the field. Synergy and optimizing the roles of the parties involved interests are very necessary accordingly with their respective roles and functions. Based on the results of the stakeholder analysis study that the parties have functions and clear authority in development sustainable ecotourism area.

The results of the analysis of variance test show that there are significant differences in the level of satisfaction of the Toba people with education, tourism and health, while there are no significant differences in satisfaction with agriculture, social culture and religion. This indicates the need for more attention in effect of age (Table 3), education, effect gender (Table 4) tourism and health sectors to ensure that existing services and programs can meet the needs of all levels of society.

Table 3. Results of Variance Analysis Test for the Effect of Age

				Sum of	Mean		
				Square	df	Square	F Sig.
Education	Between Groups	(Combined)		5.000	3	1.667	4.646 .010
		Linear Terms	Not Weighted	1.199	1	1.199	3.342 .080
			Weighted	.002	1	.002	.006 .938
	Within the Group		Deviation	4.998	2	2.499	6.967 .004
		Total		8.967	25	.359	
		Total		13.967	28		
Tour	Between Groups	(Combined)		5.000	3	1.667	4.646 .010
		Linear Terms	Not Weighted	1.199	1	1.199	3.342 .080
			Weighted	.002	1	.002	.006 .938
	Within the Group		Deviation	4.998	2	2.499	6.967 .004
		Total		8.967	25	.359	
		Total		13.967	28		
Health	Between Groups	(Combined)		4.350	3	1.450	5.082 .007
		Linear Terms	Not Weighted	1.655	1	1.655	5.801 .024
			Weighted	.480	1	.480	1.682 .206
	Within the Group		Deviation	3.870	2	1.935	6.782 .004
		Total		7.132	25	.285	
		Total		11.481	28		
Agriculture	Between Groups	(Combined)		1.518	3	.506	.779 .517
		Linear Terms	Not Weighted	1.213	1	1.213	1.868 .184
			Weighted	.567	1	.567	.874 .359
	Within the Group		Deviation	.951	2	.475	.732 .491
		Total		16.236	25	.649	
		Total		17.754	28		
Socio-cultural	Between Groups	(Combined)		.322	3	.107	.565 .643
		Linear Terms	Not Weighted	.138	1	.138	.727 .402
			Weighted	.182	1	.182	.956 .338
	Within the Group		Deviation	.140	2	.070	.369 .695
		Total		4.749	25	.190	
		Total		5.070	28		
Religious	Between Groups	(Combined)		.742	3	.247	.643 .594
		Linear Terms	Not Weighted	.677	1	.677	1.762 .196
			Weighted	.325	1	.325	.847 .366
	Within the Group		Deviation	.416	2	.208	.542 .588
		Total		9.609	25	.384	
		Total		10.350	28		

Source: Processed Data (2024)

Based on the results of the one-way analysis of variance test, it can be concluded that the variables Education, Tourism, and Health show significant differences between the groups tested, with respective F values of 4.646 (Sig. 0.010), 4.646 (Sig. 0.010), and 5.082 (Sig. in 0.007). This indicates that there is a significant influence on the variations in these three variables. Moreover, for the Education and Tourism variables, the

Deviation component shows high significance with an F value of 6.967 and a significance of 0.004, and for Health with an F value of 6.782 and a significance of 0.004. In contrast, the Agricultural, Socio-Cultural and Religious variables did not show significant differences (Sig. > 0.05), indicating that there was no significant influence on the variations within these groups. This finding is in line with research by Fazira et al., (2023) which states the importance of interventions in the education and health sectors to achieve significant change.

Based on (table 4) the results of the variance analysis test that has been carried out, it can be concluded that only the Socio-Cultural variable shows significant differences between the groups tested, with an F value of 4.718 and a significance of 0.039. This shows that there is a statistically different influence on this variable compared to other variables such as Education, Tourism, Health, Agriculture and Religion which do not show significant differences (significance value > 0.05). This is in accordance with research by Ghoni & Bodroastuti (2012) and Revida et al. (2018), which states that interventions or variations that occur in socio-cultural factors have a more meaningful impact than other factors in this research. While Siregar et al (2023) said The output of this service includes increasing partner empowerment which includes increasing knowledge, increasing skills, product quality improvement, product quantity increase, production capacity increase, turnover number increase, management capability improvement, profit increase and standardized product improvement.

Ecotourism development should coordinating and collaborating with various relevant stakeholders is implemented by operational institutions. In this case of Bappenas, Ministry of Maritime Affairs, Ministry of Tourism, Ministry of PUPR, Provincial Bappeda in North of Sumatra, and District Bappeda Third, operational institutions (operational agency), namely an institution that directly implementing policies in the field, among others others Tourism Department, Pokdarwis, Forestry, and NGOs. Behavioral strategies/factors in developing tourism based on sustainable development is inter-agency cooperation and improvement community participation, distribution resources as well as communication and coordination (Lestari et al, 2020; Setiawan, 2020).

According to Hajar (2022), If implemented with optimal planning, tourism development will encourage economic growth and improve people's welfare. However, if tourism development does not go through good planning, it will hurt people's lives around the Lake Toba area. Then Revida et al. (2023) concluded samples were taken from all the bureaucratic in Lake Toba Parapat North Sumatera of 120 people from 4 district around Lake Toba North Sumatera. Data collection techniques used from documentary studies, questionnaires, interviews and observations, while the data analysis technique used were Product Moment and Simple Linier Regression analysis.



**Table 4.** Results of Variance Analysis Test for the Effect of Gender

Variance Analysis				Sum of Squares	Df	Mean Square	F	Sig.	
Education	(Combined)			1.018	1	1.018	2.122	.157	
	Between Groups	Linear Terms	Not Weighted	1.018	1	1.018	2.122	.157	
			Weighted	1.018	1	1.018	2.122	.157	
	Within the Group			12.949	27	.480			
	Total			13.967	28				
Tour	(Combined)			1.018	1	1.018	2.122	.157	
	Between Groups	Linear Terms	Not Weighted	1.018	1	1.018	2.122	.157	
			Weighted	1.018	1	1.018	2.122	.157	
	Within the Group			12.949	27	.480			
	Total			13.967	28				
Health	(Combined)			.202	1	.202	.484	.492	
	Between Groups	Linear Terms	Not Weighted	.202	1	.202	.484	.492	
			Weighted	.202	1	.202	.484	.492	
	Within the Group			11.279	27	.418			
	Total			11.481	28				
Agriculture	(Combined)			.217	1	.217	.334	.568	
	Between Groups	Linear Terms	Not Weighted	.217	1	.217	.334	.568	
			Weighted	.217	1	.217	.334	.568	
	Within the Group			17.538	27	.650			
	Total			17.754	28				
Socio-cultural	(Combined)			.754	1	.754	4.718	.039	
	Between Groups	Linear Terms	Not Weighted	.754	1	.754	4.718	.039	
			Weighted	.754	1	.754	4.718	.039	
	Within the Group			4.316	27	.160			
	Total			5.070	28				
Religious	(Combined)			.409	1	.409	1.111	.301	
	Between Groups	Linear Terms	Not Weighted	.409	1	.409	1.111	.301	
			Weighted	.409	1	.409	1.111	.301	
	Within the Group			9.941	27	.368			
	Total			10.350	28				

Source: Processed Data (2024)

## CONCLUSIONS

The analysis reveals significant differences in public satisfaction levels across the education, tourism, and health sectors, as indicated by a significant F value from the variance test. While the education and tourism sectors demonstrate high levels of

satisfaction, the socio-cultural and religious sectors exhibit relatively lower satisfaction. Furthermore, the gender data analysis shows a balanced distribution with low variability, whereas the age data of respondents displays considerable variation. The community's expectations are increasing the number of tourists, integrated Lake Toba management regulations, opening up employment opportunities, increasing the economy and preserving local customs and culture, increasing the preservation of Lake Toba, improving the quality of infrastructure and supporting tourism facilities, providing opportunities to provide children with higher education, and increasing the community's economy.

## RECOMMENDATIONS

It is recommended that the government focus on improving satisfaction in the socio-cultural and religious sectors, which are currently low, by enhancing support and facilities. Additionally, ongoing evaluation of the education, tourism, and health sectors is crucial to maintain public satisfaction, especially considering age variations and gender distribution.

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