

# **ANALYSING THE DEVELOPMENT LEVEL OF TOURISM IN NYAUNG SHWE TOWNSHIP**

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## **Abstract**

Tourism is not only playing a vital role in the national economies but also results can have both positive and negative impacts on tourists' destinations and local communities. Reducing the negative impacts of tourism depends on the development of well-planned strategies that facilitate informed decision-making for sustainable and responsible tourism. This study aims to analyze the level of tourism development in Nyaung Shwe Township using the Doxy Irritation Index. According to the Doxy Irritation Index, this study concludes that residents of Nyaung Shwe Township perceive tourism activities at the "Apathy" stage. Additionally, this study also found that age, educational background, length of residence, occupation, and educational backgrounds influence on residents' perceptions.

**Keywords:** Doxy Irritation Index, tourism impacts, tourism development, residents

## **Introduction**

Tourism plays a vital role in national economies, primarily contributing to sustainable development. Its significance extends beyond economic contributions to both countries and local destinations. As a growing sector, tourism fosters a unique relationship and interaction among visitors, the industry, the environment, and local communities (UNEP, 2005).

It is widely acknowledged that tourism has both positive and negative impacts on social, cultural, economic, and environmental dimensions (UNWTO, 2004). Additionally, successful tourism development relies on maintaining positive relationships among tourists, residents, governments, and private business owners in the community (Sharply, 2014). From the locals' perspective, success depends on residents believing that the benefits of tourism outweigh the drawbacks (Sharpley, 2014).

Furthermore, ensuring the sustainability of tourism activities in destinations is crucial for the long-term preservation of current tourism resources and the sustained economic contributions of tourism in these areas (An, 2014). Reducing the negative impacts of tourism on tourists' destinations depended on the development of well-planned tourism initiatives.

Nyaung Shwe Township, one of the top four destinations of Myanmar, has become popular tourist destination among international travelers due to its abundant cultural and natural heritage, genuine hospitality, and spiritual values (MOHT, 2013). This study examines the tourism development stages of Nyaung Shwe Township in light of its growing significance as a tourist destination, the broader economic implications of tourism, and the necessity to foster sustainable development that respects the local community's values and concerns. Therefore, the study aims to determine the level of tourism development in Nyaung Shwe Township using the Doxy Irritation Index, facilitating informed decision-making for planned and sustainable tourism development.

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## **Literature Review**

### **Perception of Tourism Development**

In numerous studies, the measurement of tourism development involves quantitative data such as the number of hotels, restaurants, and recreational businesses, along with the community's tourism-related sales rates. Additionally, the impacts resulting from development can be gauged by assessing tourist satisfaction or examining the perceptions and attitudes of the local community towards tourism (Doxey, 1975). Literature commonly intertwines the evaluation of local people's perceptions and attitudes, considering both positive and negative impacts. It frequently addresses economic, social, and environmental issues concurrently with general attitudes and perceptions towards tourism (Brougham and Butler, 1981; Liu and Var, 1986). Some studies link these factors to the development stage, while others concentrate on assessing locals' perceptions of community life.

The perception of locals towards tourism is crucial for successful tourism development, as sustainable tourism is challenging to achieve without the cooperation, support, and participation of residents (Ugur and Odmis, 2018). According to An (2016), Doxey's Theory is utilized to determine the stages of destinations in tourism development. Doxey's Theory (1975) provides insight into local residents' attitude change toward tourists and tourism development. The different stages in Doxey's Theory are primarily the consequence of tourism development in terms of its varying social, economic, and environmental impacts on the destination. The irritation phase occurs when residents become concerned about tourism due to a significant growth in the number of tourists.

### **Impacts of Tourism**

Tourism movements have significant economic, social, and environmental impacts on both tourist-generating and tourist-receiving countries. Despite recognizing the limitations and challenges associated with tourism, many of these issues are addressable. Overall, the positive factors of tourism outweigh the negative ones, as tourism provides a foundation for long-term development. Consequently, the impact of tourism has become a focal point in tourism research, categorized into three main aspects: environmental impact, economic impact, and socio-cultural impact (An, 2016).

The positive economic impact serves as a significant driver of tourism development, directly benefiting individuals and communities (Cooper et al., 2008). Economic benefits can be categorized into personal and regional benefits, encompassing both direct and indirect advantages. Research indicates that positive economic impacts include the creation of job opportunities, alleviation of employment pressures, increased foreign exchange earnings, stimulation of other industries, and a boost to the gross domestic product within the tourism district. Additionally, tourism contributes to enhancing residents' quality of life and the availability of commodities (Davis et al., 1988). Furthermore, the tourism business offers development advantages, characterized by low costs, quick effectiveness, and high profits.

Traditionally, the socio-cultural impacts are viewed as a combined impact because of the problem of distinguishing between sociological and cultural impacts (Cooper et al., 2008). Social and cultural impacts can be summarized as follows: a change in the residents' values, the influence on neighbor and family relationships, the transformation of local norms, the influence of community attachment, a change in religious beliefs, and the influence on the traditional culture and way of life. Some of these impacts are regarded as positive, while others could be deemed negative depending on different perspectives and levels of impact (Cooper et al., 2008).

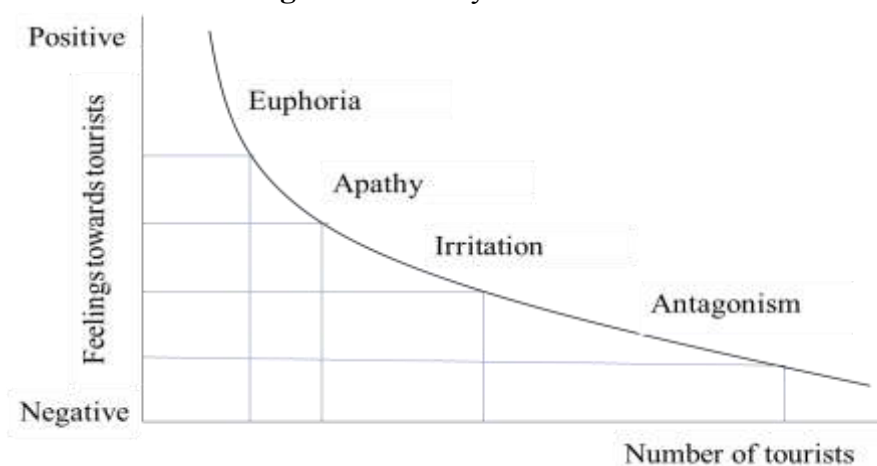
In the context of tourism growth, the landscape environment inevitably modified to meet visitors' requirements in a destination. Tourism development has been perceived positively as an opportunity to leverage development-induced change to advance community goals. Destination areas have witnessed benefits from infrastructural investments such as roads, water facilities, hospitals, and police protection (Var, Brayley, and Korzay, 1989). Initiatives such as designating more beaches as parks, developing attractions (Husbands, 1989), making more and better leisure facilities available (Rothman, 1978), and preserving and restoring works of historical architecture (Barker, 1982) have contributed to the positive transformation of these areas. Furthermore, tourism has stimulated conservation efforts, fostering an appreciation for natural beauty and historical monuments (Rothman, 1978).

### Doxey's Theory

Doxey's (1975) Irridex examines the dynamic between tourists and locals, proposing that as the number of tourists increases, greater hostility from locals towards tourists would emerge over time. Doxey (1975) suggests that residents' attitudes change through interactions with visitors at different stages of tourism development.

Doxey (1975) assumed that residents' attitudes change as a result of interactions between hosts and visitors at different stages of tourism development. The author also considered that the growing number of visitors is proportional to locals' growing discontent with tourists. Figure 1 shows a relationship curve and illustrates the relationship between the number of tourists and residents' attitude change.

**Figure 1:** Doxey's Irridex Model



Source: (Doxey, 1975)

Doxey's Irridex theory follows four residential attitudes that range from euphoria to antagonism. Doxey Irritation Index is explained in detail in Table 1.

**Table 1: The Stages of Doxey Irritation Index**

Sr. No.	Stages	Features
1.	Stage I- Euphoria	The small-scale tourism movements provide that local people tend to accept tourism and tourists, experiencing extreme happiness. Local people exhibit a positive approach to tourism and tourists at this stage.
2.	Stage II- Apathy	Increasing tourism activities make marketing more important and effective. As a result, a commercial relationship between local people and tourists begins to develop. At this stage, the local people don't care about the increase in the number of tourists, because the relationship between local people and tourists is monetary sourced.
3.	Stage III- Irritation	With the increasing concentration of tourism, local people begin to feel uncomfortable and suspicious about the tourism sector.
4.	Stage IV- Antagonism	Local people begin to express their anger and perceive tourists as responsible for everything at this stage.

Source: Dogan & Unguren, 2010

The initial phase of tourism development, termed the "euphoria" stage, is characterized by a low number of tourists, a welcoming host community, and residents' curiosity about outsiders. As tourism progresses, the number of visitors increases, and the local community has more interactions with them. During this stage, locals' attitudes towards tourists become indifferent, neither liking nor disliking visitors and the interaction between hosts and visitors tends to be commercial, marking the "apathy" stage.

In the "irritation" stage, hosts' attitudes towards guests turn towards antipathy. At this point, the host community begins to feel that its daily life is disturbed by tourists, recognizing the negative effects of tourism. As tourism continues to develop, socio-cultural and environmental problems intensify. The landscape and socio-cultural atmosphere undergo significant changes, and the local community becomes increasingly hostile towards visitors, signifying the residents' shift into the final phase \_ the "antagonism" stage. This model illustrates that residents' attitudes towards tourism undergo a series of changes.

## **Methods**

### **Sample Size Determination**

A two-stage sampling design is used in the survey. In Nyaung Shwe Township, the most popular tourist places are 12 wards and 7 village tracks. In the first stage, a sample of 2 wards and 4 village tracks is selected using simple random sampling method from the total of 12 wards

and 7 village tracks in Nyaung Shwe Township. In the second stage, sample households are proportionately chosen from the selected wards and village tracts in the first stage using a simple random sampling method. The total number of households selected from Nyaung Shwe Township is 373 households.

### Data Analysis

The data were analyzed using descriptive statistics. Confirmatory Factor Analysis (CFA) was used to determine whether the observed variables accurately reflect the intended factors to be measured and Cronbach's Alpha model was employed to assess the reliability of the questionnaire. Subsequently, t-tests and One-Way Analysis of Variance (ANOVA) were used to determine percentage and frequency distribution, stages according to the Doxey Index, and the differences between participants and stages of the Doxey Irritation Index.

## Findings

### Factor Analysis and Reliability Test

Factor analysis results shows that all Kaiser-Meyr-Olkin (KMO) values for each dimension are greater than 0.7, and Bartlett's test of sphericity is statistically significant for all dimensions. In the principal component factor analysis, all factor loadings exceed 0.33, and they load on only one component for each dimension. This can be concluded that each dimension can be reliably measured by respective variables, and all of the variables are valid indicators.

The results of the reliability test indicate that Cronbach's alpha values for all factors, such as Euphoria, Apathy, Irritation and Antagonism are higher than 0.70. This implies that there is internal consistencies among these factors and that they are reliable.

### Doxey Irritation Index

Table (2) shows the means of the responses of the participants according to the Doxey Irritation Index.

**Table 2: Perception of Respondents on Doxey Irritation Index**

Stages	Statements	Mean	Std. Dev
Stage I- Euphoria	We need to improve transportation for the development of tourism in Nyaung Shwe Township.	4.07	0.541
	We need to improve energy and power supplies for the development of tourism in Nyaung Shwe Township.	4.13	0.584
	We need to improve internet services for the development of tourism in Nyaung Shwe Township.	4.16	0.575
	We need to improve health care services for the development of tourism in Nyaung Shwe Township.	4.15	0.613
	I believe tourism industry should be actively encouraged in Nyaung Shwe Township.	4.08	0.530

Stages	Statements	Mean	Std. Dev
	I would like to increase the number of both domestic and foreign tourists in Nyaung Shwe Township.	4.09	0.571
	I think that tourism is important for the development of Nyaung Shwe Township.	3.98	0.624
	<b>Overall Mean</b>	4.09	
Stage II- Apathy	Tourism development enhances employment opportunities.	4.13	0.623
	Tourism development attracts more investments to your community.	4.04	0.634
	Incomes of the local residents significantly rise due to tourism development.	4.08	0.655
	Tourism is promising driving factor to other local industries.	3.97	0.665
	Tourism increases local business revenues for the host community.	4.04	0.646
	Tourism increases production of native handicrafts.	4.13	0.646
	Tourism development increases income and standard of living.	4.07	0.652
	<b>Overall Mean</b>	4.07	
Stage III- Irritation	Tourism development leads to the destruction of ancient buildings and historical sites (Such as overcrowding and graffiti on the historical sites).	2.80	1.077
	Local traditions and cultural are commercialized to the tastes of tourists.	2.85	1.070
	Tourism development leads to a decline in the quality and design of local handicrafts.	2.50	1.026
	Local people alter their behavior in attempt to copy the styles of tourists.	2.61	1.023
	Interacting with tourists leads to deteriorations of local languages.	2.42	0.976
	Tourism development increases the traffic congestion problems.	2.59	0.965
	<b>Overall Mean</b>	2.63	

Stages	Statements	Mean	Std. Dev
Stage IV- Antagonism	Tourism interrupts the peace and tranquility of the town.	2.69	1.002
	Tourism development brings about a rise in crime rates.	2.54	0.951
	The increasing number of tourists leads to friction between residents and visitors.	2.55	0.984
	Tourism constrains leisure activities of local residents.	2.45	0.956
	I would like to relocate from my community due to the tourism development.	2.27	1.051
	<b>Overall Mean</b>	2.5	

Source: Survey Data, 2022

The table shows the dimension of “Euphoria” with an average of 4.09 and the dimension of “Apathy” with an average of 4.07. Evaluating according to the Doxey Irritation Index, it can be concluded that thoughts of residents in Nyaung Shwe Township about tourism activities are the stage of “Apathy”. This means that residents still acknowledge the positive impacts on employment, investment, income, and local industries.

However, the dimensions “Irritation” (M=2.63) and “Antagonism” (M=2.5) shows that the residents in Nyaung Shwe Township express concerns about the potential negative impacts of tourism development.

### Differences between Respondents’ Characteristics and Stages of the Doxey Irritation Index

Table (3) shows the t-test regarding the difference between the gender of respondents and stages of the Doxey Irritation Index.

**Table 3: Results of the T-test for Gender**

Stages	Gender	n	Mean	t	D.F	Sig. (2-tailed)
Euphoria	Man	183	4.1007	0.256	371	0.798
	Woman	190	4.0887			
Apathy	Man	183	4.0656	-0.068	371	0.946
	Woman	190	4.0692			
Irritation	Man	183	2.6220	-0.125	371	0.900
	Woman	190	2.6325			
Antagonism	Man	183	2.5213	0.568	371	0.571
	Woman	190	2.4758			

Source: Survey Data, 2022

The results show there is no significant difference between the gender of the respondents and their perception of tourism activities according to the Doxey Index. It can be concluded that residents' perspective on tourism activities does not change based on their gender, aligning with the Doxey Irritation Index.

Table (4) shows the results of the One-Way Analysis of Variance (ANOVA) performed to determine the difference between the age of the respondents and stages of the Doxey Irritation Index.

**Table 4: One-Way Analysis of Variance (ANOVA) Results for the Age**

		<b>Sum of Squares</b>	<b>D.F.</b>	<b>Mean of Squares</b>	<b>F-value</b>	<b>Sig</b>
Euphoria	Between group	2.108	3	0.703	3.532	0.015
	Within group	73.391	369	0.199		
	Total	75.499	372			
Apathy	Between group	2.886	3	0.962	3.789	0.011
	Within group	93.705	369	0.254		
	Total	96.591	372			
Irritation	Between group	7.059	3	2.353	3.755	0.011
	Within group	231.253	369	0.627		
	Total	238.312	372			
Antagonism	Between group	7.717	3	2.572	4.417	0.005
	Within group	214.892	369	0.582		
	Total	222.609	372			

Source: Survey Data, 2022

The results show there was a significant difference in Euphoria, Apathy, Irritation, and Antagonism scores among different age groups. This suggests that age is an importance factor influencing residents' perception of tourism activities according to the Doxey Index. The results of the bonferroni test show that there was a significant difference at the 0.05 level in the Euphoria stage between the age groups of 18-27 and 28-37. Comparing the averages, it shows that residents in the age group of 28-37 shows the highest participation in the Euphoria stage.

In the Apathy stage, there was a significant difference at the 5% significant level between the age groups of 18-28 and 28-37, and between 18-28 and 48 and above. Comparing the averages, it shows that residents in the age group of 28-37 and 48 and above shows the highest participation in the Apathy stage.



For the Irritation stage, there was a significant difference at the 5% significant level between age groups of 18-27 and 38-47. Comparing the averages, it shows that residents in the age group of 18-27 shows the highest participation in the Irritation stage.

In the Antagonism stage, there was a significant difference at the 5% significant level between age groups of 18-27 and 28-37, and between age groups of 18-27 and 38-47. Comparing the averages, it shows that residents in the age group of 18-27 shows the highest participation in the Antagonism stage.

Table (5) shows the results of ANOVA that are performed to determine the difference between educational background of the respondents and stages of the Doxey Irritation Index.

**Table 5: One-Way Analysis of Variance (ANOVA) Results for Education**

		Sum of Squares	df	Mean of Squares	F-value	Sig
Euphoria	Between group	1.642	2	0.821	4.114	0.017
	Within group	73.856	370	0.200		
	Total	75.499	372			
Apathy	Between group	1.819	2	0.910	3.551	0.030
	Within group	94.772	370	0.256		
	Total	96.591	372			
Irritation	Between group	1.747	2	0.873	1.366	0.356
	Within group	236.565	370	0.639		
	Total	238.312	372			
Antagonism	Between group	3.556	2	1.778	3.003	0.051
	Within group	219.053	370	0.592		
	Total	222.609	372			

Source: Survey Data, 2022

The results show there was a significant difference between the educational background and perception of respondent in the stage of Euphoria and Apathy at the 5% significant level, and in the stage of Antagonism at the 10% significant level. However, there was no significant difference between educational background of the respondents and stages of Irritation. Comparing the averages, it shows that residents with higher education level show the highest participation in the stage of Euphoria and Apathy. Additionally, residents with higher education levels also show the highest participation in the stage of Irritation and Antagonism. It is observed that they not only perceive the tourism benefit but also express concerns about the negative impacts of tourism.

Table (6) shows the results of ANOVA that are performed to determine the difference between length of residence and stages of the Doxey Irritation Index.

**Table 6: One-Way Analysis of Variance (ANOVA) Results for Length of Residence**

		Sum of Squares	df	Mean of Squares	F-value	Sig
Euphoria	Between group	15.200	55	0.276	1.453	0.027
	Within group	60.299	317	0.190		
	Total	75.499	372			
Apathy	Between group	17.304	55	0.315	1.258	0.118
	Within group	79.287	317	0.250		
	Total	96.591	372			
Irritation	Between group	45.524	55	0.828	1.361	0.056
	Within group	192.788	317	0.608		
	Total	238.312	372			
Antagonism	Between group	49.263	55	0.896	1.638	0.005
	Within group	173.345	317	0.547		
	Total	222.609	372			

Source: Survey Data, 2022

The results show there was no significant difference between length of residence and the perspective of tourism activities in stages of Apathy. However, there was a significant difference between length of residence and the perspective of tourism activities in stages of Apathy and Antagonism at the 5% significant level and Irritation at the 5% significant level. Comparing the average, it shows that residents residing in Nyaung Shwe Township for more than 6 years shows the highest participation in the stages of Euphoria, Irritation and Antagonism.

Table (7) shows the results of ANOVA that are performed to determine the difference between occupation and stages of the Doxey Irritation Index.

The results show there was no significant difference between occupation and the perspective of tourism activities in stages of Irritation. However, there was a significant difference between occupation and the perspective of tourism activities in stages of Euphoria at the 10% significant level, Apathy at the 5% significant level and Antagonism at the 10% significant level.

**Table 7: One-Way Analysis of Variance (ANOVA) Results for Occupation**

		<b>Sum of Squares</b>	<b>df</b>	<b>Mean of Squares</b>	<b>F-value</b>	<b>Sig</b>
Euphoria	Between group	0.715	1	0.715	3.548	0.060
	Within group	74.783	371	0.202		
	Total	75.499	372			
Apathy	Between group	2.396	1	2.396	9.439	0.002
	Within group	94.195	371	0.254		
	Total	96.591	372			
Irritation	Between group	0.785	1	0.785	1.225	0.269
	Within group	237.528	371	0.640		
	Total	238.312	372			
Antagonism	Between group	1.859	1	1.859	3.124	0.078
	Within group	220.750	371	0.595		
	Total	222.609	372			

Source: Survey Data, 2022

Comparing the average, it is evident that residents working in tourism-related jobs shows the highest participation in the stages of Euphoria and Apathy. On the other hand, residents employed in the agriculture sector, government staff, and others non-tourism-related jobs show the highest participation in the stages of Antagonism.

### Conclusion

Residents in Nyaung Shwe Township appear to hold a mixed perception of tourism activities. While there is a general acknowledgment of positive impacts, particularly reflected in the "Apathy" stage, concerns and worries about negative consequences are evident in the lower scores for "Irritation" and "Antagonism." According to the Doxey Irritation Index, it can be concluded that the thoughts of residents in Nyaung Shwe Township about tourism activities are at the stage of "Apathy". This means that residents still acknowledge the positive impacts on employment, investment, income, and local industries.

Therefore, this study highlights the need for a balanced approach to tourism development that addresses both positive and negative aspects, taking into account the concerns and expectations of the local community. Further engagement and dialogue between residents and stakeholders could contribute to a more sustainable and community-friendly tourism development in the region.

The study provides insights into the factors influencing residents' perspectives on tourism activities. While gender does not seem to play a significant role, age, educational background, length of residence, and occupation influence residents' perceptions. These findings highlight the need for strategic approaches in community engagement and tourism planning, considering the diverse demographic factors that shape residents' perspectives.

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