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SOCIAL CARRYING CAPACITY AS A PLANNING TOOL FOR SUSTAINABLE TOURISM: A CASE OF PANGKOR ISLAND, PERAK, MALAYSIA

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Abstract

Tourism can drive economic growth and development in destinations, but unchecked growth can have negative impacts on local communities and the environment. To ensure that tourism is sustainable and does not cause harm, social carrying capacity (SCC) has become a useful planning tool. SCC refers to the maximum number of tourists that a destination can accommodate without exceeding the capacity of local resources, infrastructure, and services. This study aims to identify the level of crowding on public holidays at Pangkor Island and the acceptance levels of tourists and the local community regarding tourism. A quantitative methodology was used, involving 96 international tourists, 332 domestic tourists, and 387 members of the local community. The results indicate that the level of crowding on public holidays at Pangkor Island is still within acceptable limits. The barometer showed that international tourist respondents rated the level of crowding as excellent (green colour), while domestic tourist respondents rated it as acceptable (yellow colour). Local community respondents also rated the level of crowding as high but still acceptable (green colour). This study concludes that the Social Carrying Capacity at Pangkor Island is still good, and it is important to maintain it to achieve sustainable tourism. By managing tourism growth and ensuring that the number of tourists does not exceed the SCC, destinations can reap the economic benefits of tourism while preserving the natural and cultural heritage of the area and protecting the well-being of the local community.

***Keywords**:* Tourism, Carrying Capacity, Social Carrying Capaccity, Sustainable tourism

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INTRODUCTION

Tourism plays a significant role in the development of a country. The tourism industry is an effective medium for advancing a country's economy and the development of a region (Dahles and Bras, 1999;Yusoh et al., 2022). In the context of Malaysia, the government allocated RM1.6 billio for the tourism sector in the 2022 budget. The number of tourist arrivals in Malaysia increased from 25.83 million in 2018 to 26.1 million in 2019, with revenues reaching RM86.1 billion (Tourism Malaysia, 2021). As tourism development in the country accelerates, environmental issues need to be taken seriously to ensure its sustainability. One important concept of sustainability is carrying capacity (Yusoh et al., 2021). A densely developed destination will affect the landscape and quality of the surrounding environment and also affect the comfort and satisfaction of visitors. Visitor satisfaction is a key factor in the intensity and repetition of visits to a tourism destination. In some cases, tourism operators take advantage of excessive visitor arrivals to a single location without considering the site's capacity to accommodate frequent and large numbers of visitors. Therefore, the importance of carrying capacity needs to be understood and embraced by practitioners in the tourism industry. For further theoretical analysis of carrying capacity in tourism, this paper will examine the concept, measurement, and influencing factors.

Sustainable tourism can be defined as "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (World Tourism Organization, 2004). This definition emphasizes the importance of tourism that is economically viable, socially responsible, and environmentally sustainable. Sustainable tourism aims to promote economic growth while minimizing negative social and environmental impacts. Sustainable tourism also involves promoting responsible tourism practices such as reducing waste, conserving resources, supporting local businesses and communities, and protecting natural and cultural heritage sites. It requires collaboration between stakeholders, including tourism operators, local governments, community groups, and visitors.

Tourism can be a significant driver of economic growth and development for many destinations around the world (Pirdaus Yusoh et al., 2022). However, unchecked tourism growth can also have negative impacts on the local community and the environment, such as overcrowding, strain on local resources and infrastructure, and degradation of natural and cultural heritage sites. To ensure that tourism development is sustainable and does not cause negative impacts, social carrying capacity (SCC) has emerged as a useful planning tool in sustainable tourism. SCC refers to the maximum number of tourists that can be

accommodated in a destination without exceeding the capacity of local resources, infrastructure, and services (Yusoh et al., 2021).

Social Carrying Capacity (SCC) is a crucial aspect of sustainable tourism that focuses on the social and cultural impacts of tourism on the local population. Compared to physical, ecological, and economic carrying capacities, measuring SCC is challenging as it heavily depends on perceptions and values (Saveriades, 2000; Symmonds and Hammitt, 2000). Furthermore, SCC is difficult to measure as it is influenced by individual preferences, attitudes, opinions, and experiences (Mauerhofer, 2013; Jurado et al., 2013). SCC considers the concepts of crowding and their impact on locals and tourist satisfaction (Qian Jin, 2009).

SCC assessment involves analysing the carrying capacity of natural and cultural attractions, availability of accommodation and transport, and the attitudes and behaviour of visitors and local communities. Once the SCC is established, it can guide tourism development plans and policies that promote responsible tourism practices, protect the local environment and culture, and ensure that the tourist experience remains positive. Effective management of SCC in sustainable tourism requires collaboration between stakeholders such as tourism operators, local governments, community groups, and visitors. This management can involve zoning and land-use planning, implementing carrying capacity limits and monitoring systems, and capacity-building for local communities and tourism operators.

Overall, SCC is an important planning tool for sustainable tourism as it ensures that tourism growth is balanced with the needs and capacities of local communities and the environment. By managing SCC effectively, sustainable tourism can generate economic benefits while preserving the natural and cultural assets that make a destination attractive to visitors.

PROBLEM STATEMENT

Pangkor Island is a highly popular tourist destination in Malaysia, with a population of 15,499 recorded in 2015. However, the rapid development of the island is expected to attract more tourists, which may cause pressure on stakeholders such as tourists and the local community. To ensure sustainable tourism development, it is crucial to consider both physical and social aspects of sustainability.

Unfortunately, the local authority has only conducted physical development planning, and no party has studied the social carrying capacity aspect of sustainability in tourism. Previous studies have focused on only one stakeholder, such as foreign tourists, and did not provide a comprehensive definition of social carrying capacity.

Therefore, this research aims to address this gap by determining the level of social carrying capacity in tourism on Pangkor Island, especially during holidays. The monthly statistics released by Manjung Municipal Council (2019) indicate that public holidays attract a high number of tourists, resulting in overcrowding and indicating a high influx of visitors.

This situation highlights the importance of assessing social carrying capacity. In 2015, Pangkor Island received 1.9 million tourists, which increased to 2.1 million in 2016. As the number of tourists continues to rise annually, it creates pressure not only on tourism resources but also on the local community.

Assessing social carrying capacity involves not only evaluating the quality of the tourist experience that a destination can handle before visitors seek alternative destinations but also assessing the level of tolerance of the local community towards the presence of tourists (Saveriades, 2000). Therefore, it is essential to consider the perspectives of both tourists and the local community when assessing social carrying capacity.

Overall, the research aims to provide valuable insights into the level of social carrying capacity in tourism on Pangkor Island, which can inform sustainable tourism development planning and ensure the well-being of both tourists and the local community.

LITERATURE REVIEW

Sustainable tourism

Sustainable tourism is defined as "tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities" (UNWTO, 2018). Sustainable tourism seeks to minimize negative impacts while maximizing positive ones, ensuring that tourism can continue to benefit communities and the environment for generations to come.

There are several ways in which sustainable tourism can be implemented. For example, sustainable tourism can involve the use of environmentally friendly practices in the tourism industry, such as the use of renewable energy sources, minimizing waste, and reducing the carbon footprint of tourism activities (Lindberg et al., 1996). It can also involve the promotion of local cultures and traditions, supporting community-based tourism initiatives, and investing in the development of local infrastructure to support sustainable tourism activities (UNWTO, 2018).

Several studies have highlighted the importance of sustainable tourism for the long-term success of the tourism industry. For example, a study by Gössling et al. (2012) found that sustainable tourism practices can lead to improved economic, social, and environmental outcomes for tourism destinations. Similarly, a study by Higham et al. (2013) found that sustainable

tourism practices can help to reduce the negative impacts of tourism, such as environmental degradation and cultural erosion, while also enhancing the positive impacts of tourism, such as economic growth and employment creation.

In conclusion, sustainable tourism is an important concept that seeks to ensure the long-term viability of the tourism industry by minimizing negative impacts and maximizing positive ones. There is a growing body of research that highlights the benefits of sustainable tourism practices for both tourism destinations and the tourism industry.

Tourism Carrying Capacity

Starting in the early 1960s, research on outdoor recreation activities has used the concept of Tourism Carrying Capacity (TCC) to address the sources and social impacts of visitor use (Manning et al., 1999; Lawson et al., 2003). This concept has been used by researchers and managers in the context of tourism and environmental science to address financial resources and avoid negative effects on society (Manning et al., 1996). It prioritizes ecological and social parameters, such as the quality of the environment and the visitor experience. In this way, policymakers will promote sustainable tourism through the "distribution ratio for tourism activities" without exceeding the threshold for each area based on its nature and characteristics (Decleris, 2003). Saveriades (2000) and other researchers (Pásková, 2003; Salerno et al., 2013) emphasize the dynamic nature of carrying capacity. For example, Saveriades (2000) explains that "carrying capacity is not a scientific concept or formula that outputs numbers or formulas used to obtain some numbers or ranges that cause development to stop. It is a limit that may need to be given attention. This limit must be determined and monitored carefully, equipped with standards, and so on. This carrying capacity is not fixed, it evolves over time and with tourism growth and can be influenced by management techniques and controls."

The basic element of this concept is the need to establish limits on tourism activities that reflect the concerns and priorities of local managers and planners (Coccossis and Mexa, 2004). In the early 1990s, most TCC concepts were replaced with the idea of sustainable tourism, but many challenges were outlined for this new concept, such as past issues regarding TCC in terms of objective definition, practice, utility, and diversity (Navarro Jurado et al., 2012). Sustainable tourism is defined as "tourism that is economically viable but does not destroy resources - where the future of tourism will depend primarily on the physical environment and the social fabric of the host community" (Swarbrooke, 1999). The discourse on sustainable tourism development revolves around the main issue of how to manage the resources of the host community to meet basic criteria in promoting their socio-economic well-being while meeting the needs of tourists (Ko, 2001). The concept of TCC occupies an important position in

sustainable tourism (Tribe et al., 2000), and it is interpreted as the implementation of sustainable tourism and characterizes that both can exist and can be a useful framework for analysing the effects and limits of development (Butler, 1996).

Social Carrying Capacity

This study focuses on social carrying capacity in tourism. Although tourism carrying capacity has many other branches such as physical, economic and environmental carrying capacity, the researchers chose to conduct a study on social carrying capacity (SCC). Social carrying capacity involves the perceptions and views of stakeholders in tourism, namely tourists and local community, on the conditions in a tourism destination.

There has been much debate among researchers regarding the determination of the carrying capacity of a destination (Pirdaus et al., 2020; Yusoh et al., 2021), with some arguing that it should be based solely on the satisfaction of tourists, as stated by Getz (1983), Coccossis et al. (2001), and Choi and Sirakaya (2006). Tourist satisfaction is considered one of the key indicators in measuring sustainable tourism and carrying capacity. This indicator is usually based on the number of satisfied or dissatisfied tourists. However, the concepts of tourist satisfaction and service quality are broad, and therefore, a more accurate indicator that considers different perceptions of tourists about the destination during different seasons of the year should be used to test whether significant variations in tourist satisfaction exist. Alldredge (1972) asserted that visitor satisfaction decreases as usage levels increase.

SCC refers to the social and cultural impacts of tourism on local communities. SCC is one of the most difficult thresholds to measure compared to physical, ecological, and economic carrying capacity as they depend heavily on perceptions and values (Saveriades, 2000; Symmonds and Hammitt, 2000). Additionally, it is also difficult to measure as it depends on individual choices, attitudes, opinions, and experiences (Linberg et al., 1996; Mauerhofer, 2013; Jurado et al., 2013). The idea of social and psychological carrying capacity is often used to consider the concept of crowding and its effects on local community and tourist satisfaction (Qian Jin, 2009).

Saveriades (2000) defines SCC as the maximum level of use that can be absorbed by an area without an unacceptable decrease in the quality of visitor experience and without unacceptable side effects to the local community. Both components of SCC are (i) the acceptable quality of visitor experience before seeking alternative destinations (i.e. the ability to sustain tourist psychology) and (ii) the tolerance level of the host community towards the presence of tourists (i.e. the psychological carrying capacity of the residents). Many researchers have stated that SCC is the most difficult threshold to assess (compared to environmental, economic, and cultural aspects) because it depends entirely on

value judgments. Furthermore, the impact of tourism on the local population and their attitudes or tolerance towards tourism development and tourists themselves have been more systematically studied. Social carrying capacity in tourism can be seen in Table 1.

Table 1. Social Carrying Capacity in Tourism

Social Carrying Capacity (SCC)		
Tourist	Interaction between tourists and tourist	Satisfaction
Local Resident	Interaction of locals – tourists	Quality of life

Source: (Pirdaus et al., 2020)

In determining this social carrying capacity, it is calculated based on the level of satisfaction of domestic tourists. As most researchers emphasize (Choi & Sirakaya, 2006) tourist satisfaction as one of the indicators in measuring sustainable tourism and social mobility. These indicators are usually based on the amount of satisfaction or dissatisfaction of tourists and suggest a ratio between two types of travelers.

According to Kakazu (2008), SCC is defined as the maximum socially acceptable number of tourists that can be accommodated by the local population. She also agrees with the views of Marzetti and Mosetti (2005) and Saveriades (2000) that in determining SCC, both tourists and local community need to be investigated. In her study, she emphasized the concept of Cost-Benefit-Analysis in obtaining the value ratio of SCC in Okinawa Island, Japan. Therefore, to assess SCC in a location, both stakeholders, namely tourists and local community, must be involved.

STUDY AREA

Pangkor Island is situated on the coast of the Malacca Strait, with coordinates of latitude 40 12'50" North and longitude 1000 34'30" East. It covers an area of 22 km2, which includes Pangkor Laut Island spanning 1.3 km2. The population of Pangkor Island, according to the Office of the Village Head of Pangkor Island in 2017, is 16,748 individuals (refer to Table 2). Additionally, Pangkor Island is a cluster of ten islands, with Pangkor Island as the main island, along with nine other small islands such as Pangkor Laut Island, Mentagor Island, Giam Island, Dua Island, Tukun Pelan Island, Fukun Terindak Island, Batu Orang Tua, Simpan Island, and Jarak Island. Pangkor Island is approximately 85 km west of Ipoh, the capital of Perak, and situated 3.8 nautical miles away from Lumut.

The number of tourists visiting Pangkor Island has consistently increased every year, with an average rise of over one million tourists. According

to the latest statistics released by MPM in 2020, the number of tourists who visited Pangkor Island in 2019 was recorded at 1,389,923 individuals. This upsurge in tourism indicates a rapid growth of the tourism industry on Pangkor Island.

Table 2: Total local community

Race	Total resident	Percentage (%)
Malay	7,610	46.1
Chinese	7,874	47.8
Indian	970	5.9
Others	28	0.2
Total	**16,482**	**100**

Source: Office of the Village Chief of Pangkor Island (2017)

METHODOLOGY

The researcher began the study by listing the major public holidays in Malaysia. The study aimed to be conducted during these public holidays. The data collection period for this study was one year and every major public holiday in the country was targeted. The selected public holidays were the Chinese New Year holiday (January 28 and 29, 2017), Hari Raya Aidilfitri holiday (June 27 and 28, 2017), Merdeka and Hari Raya Haji holiday (August 31 to September 2, 2017), and the school holiday and Christmas holiday (December 24 and 25, 2017). Most of these public holidays involved a relatively long break of more than 3 days. Therefore, the researcher believed that it would attract tourists to visit Pangkor Island. As written in the study of Lopez-Bonilla et al. (2008), the selection of tourism season concept is appropriate because during tourist season such as public holidays and school holidays, the number of tourist arrivals is noticeably high. The quantitative approach was conducted using questionnaire on 96 foreign tourists, 332 local domestic tourist and 387 local community members. The analysis of this study used PAOT, the assessment of crowding and the respondents' acceptance of crowding. The minimum values will be plotted on a barometer to determine the respondents' acceptance towards the social carrying capacity in Pangkor Island. Three categories of minimum scores were set, where values between 1.00 to 2.33 were considered low or weak, values between 2.34 to 3.67 were considered moderate, and values between 3.68 to 5.00 were considered high (Pallant ,2007). These readings were then plotted on a barometer representing red (low/bad), yellow (moderate), and green (high/excellent). This barometer will determine the state of social carrying capacity in tourism on Pangkor Island.

FINDINGS OF THE STUDY

Respondents' Demographic Profile

This study involves four phases of data collection except for local community. Data collection for local community does not require any phase or time period because they are always on Pangkor Island and experience with every situation there. Based on Table 3, the largest number of tourist respondents is in Phase 1, with a total of 128 people followed by Phase 4 with 105 people. Phases 1 and 4 are the main public holidays in Malaysia.

Table 3: Total of respondent according to phase

Category	Phase 1 January	Phase 2 June	Phase 3 August	Phase 4 Disember	Total
International tourist	32	18	22	24	**96**
Domestic tourist	96	77	78	81	**332**
Local Community	387				**387**
Total	**128**	**95**	**100**	**105**	**815**

The four phases found that out of 96 international tourist respondents, 62.5% were male while only 37.5% were female. This finding shows a difference compared to the findings of Rosniza Aznie Che Ros (2011) who stated that female respondents were more numerous at that time. Table 4 also shows that out of 332 domestic tourist respondents, 55.4% were male, compared to 44.6% female respondents. From these findings, it can be observed that the gap between male and female respondents is not too significant, which is an advantage as it will provide better results since the responses from both genders are uniform. Of the 387 respondents in the local community category, 61.2% were women and 38.8% were men. The local community is the group of people who are closest to the development and progress happening in a tourist destination. Therefore, researching the local community is important in this study. The local community involved as respondents in this study include those who are involved in tourism and those who are not involved in the tourism development in Pangkor Island.

Table 4: Respondent profile demographic

International tourist		Domestic tourist	Local community
Item	**Percentage (100%)**		
Gender			
Man	62.5	55.4	38.8
Woman	37.5	44.6	61.2
Age			
Below 20 years old	-	12	17.6
21-30 years	45.8	38	34.4
31-40 years	32.3	15	24.3
41-50 years	14.6	29	20.4
51 years old and above	7.3	6	3.4
Level of Education			
Higher	79.9	49.7	9.8
Secondary	9	44.3	81.1
Primary	8	4.5	7.8
No formal education	-	1.5	1.3

Crowding at Pangkor Island during the public holiday

This section describes the situation on Pangkor Island during public holidays based on the perspective of the respondents, to investigate the crowding situation on Pangkor Island during public holidays. To investigate the crowding situation, the People At One Time (PAOT) method was used to determine the situation on Pangkor Island during the study. The PAOT method uses a series of images created using computer software (Image Capture Technology). It is a popular method for determining conditions related to recreation and tourism use. It is particularly useful in situations of high usage or extraordinary environmental conditions where it is not realistic to assess the situation through written means alone (Manning, 2007)

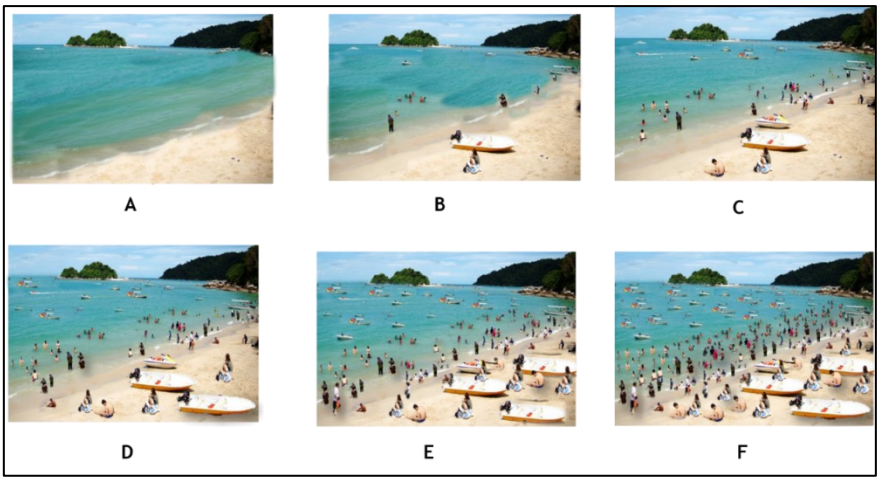

Figure 1: A selection of images depicting the situation on Pangkor Island

The findings of the study show that 45.8% of foreign tourist respondents chose Photo B. Most of the foreign tourist respondents chose an area for recreation that is relatively far from other tourists because they want privacy. In addition, the activity time of foreign tourist respondents is not the same as the activity time of domestic tourists. For example, foreign tourist respondents prefer to spend time in the beach area from early morning until midday to sunbathe and their trips to and from Pangkor Island are not regular like domestic tourist respondents.

For domestic tourist respondents, the average findings from all four phases show that Photo C recorded the highest amount with an average amount of 37.5 percent. It shows that domestic tourists feel that the situation on Pangkor Island during public holidays is 'moderately crowded'. Local community respondents stated that the situation on Pangkor Island during public holidays was 'very crowded' with 74.4% choosing Photo F (Refer to Figure 1). The selection of Photo F shows the local community stating that in the area of 271m x 44m, the number of tourists is as many as 800 people. This situation clearly shows that it is very crowded. This difference gap is very noticeable between the other photos. Photo A had the lowest number of choices with only 1.3% recorded. This significant difference clearly shows that the local community respondents stated that the situation on Pangkor Island is 'very crowded' during public holidays.

Table 5: Respondents' Perception of Crowding in Pangkor Island

Image	International tourist	Domestic Tourist	Local Community
	Percent	Percent	Percent
A	6.3	3.7	1.3
B	45.8	11.8	1.8
C	26.0	37.5	5.7
D	10.4	31.2	9.6
E	8.3	8.1	7.2
F	3.1	7.7	74.4
Total	100	100	**100**

Tourist respondent acceptance level of Crowding on Pangkor Island

In this section, the researcher will discuss about the acceptance of international and domestic tourist respondents towards the crowded conditions on Pangkor Island during public holidays. This finding is important to find out whether the respondents are comfortable with the crowding that happened on Pangkor Island at that time. If the situation of crowding is still acceptable to the respondents, the social capacity in Pangkor Island is still good. The acceptances criteria have been made to know the respond from respondents.

Based on table 6, the average on mean value for international respondent is 1.38 compared to domestic tourist is 2.87. From these mean values, researcher evaluated the mean value and plotted them on a barometer to analyzed the acceptance for the crowding aspect made by the respondents. From the barometer readings, it was found that the level of acceptance of foreign tourists towards the tourism condition on Pangkor Island was at the 'excellent' level (green) [orange arrow], while domestic tourists were at the 'moderate' level (yellow) [Black arrow] (figure 2).

Table 6: Respondents' Acceptance of Crowding on Pangkor Island

No	Statement	International tourist	Domestic Tourist
		Mean	Mean
1.	The large number of sunbathing tourists causes problems for me	1.29	3.04
2.	The large number of swimming tourists causes problems for me	1.24	3.06
3.	The large number of beach-goers causes problems for me	1.27	2.94
4.	The large number of water activity tourists causes problems for me	1.29	2.64
5.	The large number of snorkeling tourists causes problems for me	1.11	3.07

6.	The large number of fishing tourists causes problems for me	1.16	2.77
No	**Statement**	**International tourist**	**Domestic Tourist**
		Mean	**Mean**
7.	The large number of boat drivers causes problems for me	2.00	3.01
8.	The large number of tourists at historical sites causes problems for me	1.74	2.81
9.	The large number of jungle tracking/hiking tourists causes problems for me	1.07	2.60
10.	The large number of tourists at seafood factories causes problems for me	1.10	2.64
11.	The large number of driving/riding tourists causes problems for me	1.90	3.03
Average. Min		**1.38**	**2.87**

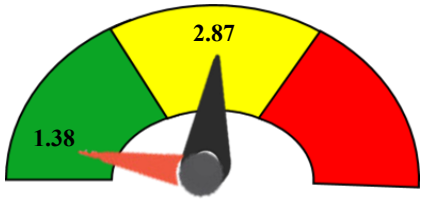

Figure 2: Barometer of respondents' acceptance of crowding on Pangkor Island

Local community Acceptance level

In this section, the researcher examines the local community acceptance of tourist arrivals to Pangkor Island. It is one of the essential aspects in determining the social carrying capacity of tourism in a location. This is consistent with Saveriades' (2000) definition, which emphasizes that in determining the social carrying capacity of an area, the crowding and satisfaction of tourists as well as the local community acceptance of tourist arrivals to their area need to be studied. Based on Table 7, most of the aspects of acceptance studied are at a high level, with a minimum value of more than 3.67, but the respondents' acceptance of sharing facilities with tourists (mean=3.04) is at a moderate level of acceptance (mean 2.34 - 3.66). The highest minimum value is recorded for the aspect of quality of life, with a mean value of 3.91. The respondents feel that their quality of life has improved due to the arrival of many tourists. This is because it will encourage the addition of better facilities and infrastructure in their area. In addition, the shift from the fishing sector to the tourism sector is more beneficial to them. The respondents' acceptance of their living comfort as local community is also at a high level with a mean value is 3.85.

The safety aspect had the lowest mean value within the high range, with a mean of 3.69. Respondents were somewhat concerned about their safety with the arrival of many tourists to Pangkor Island. This finding differs from Mastura et al (2016) study in Mabul Island, where local community felt safer with a large number of tourist arrivals as there would be more frequent monitoring by authorities.

Table 7: Local Community Acceptance of Tourist Arrival to Pangkor Island

The presence of a large number of tourists will certainly have an impact on you as a local community. Therefore, what is the level of acceptance regarding the following aspects as a result of tourism in Pangkor Island?			
No	**Statment**	**Mean**	**SD**
1.	Changes in the attitudes or sociocultural of local community	3.71	0.937
2.	Quality of life of local community	3.91	0.981
3.	Your comfort as a local community	3.85	0.917
4.	Facilities that need to be shared with tourists	3.04	0.882
5.	Safety level	3.69	0.865
6.	Increase in the number of tourists in the future	3.75	1.262
7.	Overall, what is your level of acceptance as a local community towards tourist arrivals to Pangkor Island?	3.84	1.334
Average		**3.68**	

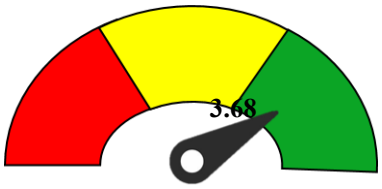

Figure 3: Barometer of Local Community Acceptance of Tourist Arrival to Pangkor Island

Overall, respondents' acceptance of tourist arrivals to Pangkor Island is at a high level with a mean value of 3.84. By taking the average value of all these indicators, the researcher concludes that the level of acceptance of local community towards tourist arrivals is high (Figure 3). According to the Irredex Doxey Model (1976), this high level of acceptance indicates that it is in the Euphoria stage, meaning that tourist arrivals are well-received by local community.

CONCLUSION

The findings of the study show that the tourism sector in Pangkor Island is experiencing positive development, with increasing tourist arrivals and the development of accommodation facilities. However, rapid development can have negative impacts on the environment and the local community. Therefore, sustainable tourism practices should be implemented to ensure the long-term viability of the tourism industry on the island.

One of the key aspects of sustainable tourism is maintaining the social carrying capacity of a destination. The study highlights the importance of assessing the social carrying capacity of both tourists and locals towards tourism activities. This means considering the impacts of tourism on the local community and ensuring that they are involved in the decision-making process.

Overall, the study demonstrates the importance of balancing economic development with environmental and social sustainability in the tourism industry. By implementing sustainable tourism practices, Pangkor Island can continue to attract tourists while ensuring the long-term viability of the tourism industry and preserving the island's natural and cultural resources.

By considering social carrying capacity in tourism planning and management, sustainable tourism can help to ensure that the benefits of tourism are distributed more equitably among local communities and that tourism development does not negatively impact their quality of life. In this way, sustainable tourism can promote social and economic development, while preserving the natural and cultural resources that make a destination attractive to tourists.

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