

## Developing Mah Meri's Perception Scale on Indigenous Tourism in Carey Island, Malaysia

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**To Link this Article:** <http://dx.doi.org/10.6007/IJARBSS/v12-i11/15616> DOI:10.6007/IJARBSS/v12-i11/15616

**Published Date:** 11 November 2022

### Abstract

The purpose of this research is to investigate the perception scale of the Mah Meri community towards three aspects namely economic, socio-cultural and environmental issues due to tourism development. 230 questionnaires were distributed among the community in Carey Island, Sungai Bumbun, but only 202 responses were usable in this study. After considering the study objectives, the study adopted non-probability sampling because the chance of each member of the Mah Meri community to be selected as a respondent of this study is not confirmed. The purposive sampling method is also used in this study because the researcher only managed to collect data from the Mah Meri community, who agreed and were willing to participate in the survey. The quantitative approach is used in this study to gather and analyse data. The results indicate a significant positive effect on economic gain, tourism's perceived economic and environmental impacts and positive community involvement in various tourism activities. The study also indicates that the perception of environmental impacts, followed by perceived economic impacts, strongly affected support for indigenous tourism development. The newly developed scale will be a novel contribution to the body of knowledge. Various stakeholders in the tourism industry will also benefit by understanding the rural area better, especially indigenous tourism and its community.

**Keywords:** Indigenous Tourism, Perception Scale, Mah Meri Community

### Introduction

With many nature attractions dominating the Malaysian tourism sector, many tourism studies in Malaysia have focused on island tourism and ecotourism, with only a limited secondary body of literature exploring indigenous aspects of tourism. Recently, many countries in the region, including Malaysia, have started recognising the potential for indigenous tourism to diversify the tourism industry and for rural economic development. In this study, Carey Island is one of the new tourist destinations in Selangor, Malaysia. To dig deeper into the program, we selected a village in Carey Island – Mah Meri Cultural Village (MMCV). Mah Meri Cultural

Village was chosen because it has received preeminent priority from the government as one of the tourism villages on Carey Island.

### **Literature Review**

The 12th Malaysia Plan has opened wide opportunities to the community, including the Orang Asli community, to upgrade their lifestyle to higher income groups. Making tourism one of the National Key Economic Activity (NKEA) should be seen as a great opportunity to develop attractive tourism products, especially in rural areas. Indigenous tourism is gradually becoming a popular tourist attraction in the world. This represents the opportunity for indigenous people to promote their distinctive cultural identity. Indigenous tourism means activities where the indigenous people are directly involved in imparting knowledge and information about their culture. Unlike other types of tourism, indigenous tourism is a kind of 'special interest' tourism and depends on the primary enthusiasm of the tourist. Their personal preferences drive tourists' motivation to visit the indigenous people. In addition, the indigenous tourists are looking for first-hand experiences and direct contact with the unique community, which is unlike the tourists' own environment.

The local indigenous people's acceptance directly impacts the development of the tourism industry in that area. This is because the indigenous people there are the core elements of all, and tourism is highly dependent on the reaction of that community. The support and cooperation from the local people are fundamental to the sustainable long-term tourism of the region. Sustainable tourism is determined to make the least impact on the environment and local culture while helping to generate future employment for local people. In the past few decades, there has been much research on hosts or residents' attitudes to tourism (e.g., Doxey, 1975; Butler, 1980; Perdue et al., 1987; Kang et al., 1994; Gursoy and Rutherford, 2003; Smith and Krannich, 2005). A recent study in the rural areas of Kedah shows that positive economic and social benefits to the rural residents become minimal because of their lack of involvement in tourism development and their inability to respond to new employment opportunities brought by tourism (Liu, 2005). This scenario is also supported by Blake et al (2008), saying that the existence of poverty in rural areas is caused by the ignorance of the local community to involve themselves in tourism. The failure of the host community to promote tourism activities in their area can be a constraint for local development (Thompson, 2004). Evidence shows that very few studies have attempted to understand the impact of tourism from the aborigine peoples' point of view. Focusing on the community's perception alone is very important, as they are the industry's key players (Kasperek, 2008).

### **Benefits of Indigenous Tourism**

The involvement of indigenous communities in ecotourism helps conservation and development and improve communities' livelihood (Coria & Calfucura, 2012). "a socio-economic cure-all for indigenous peoples" (Ruhanen et al., 2015, p. 81). In Australia, for example, indigenous communities receive assistance from mining enterprises to venture into the tourism sector (Buultjens et al., 2018). Meanwhile, in Kenya, Maasai communities benefit from tourism by showcasing their culture through performance and running small tourism businesses (Buzinde, 2014).

In Australia, mining companies have significant resources and infrastructure that could be used to help develop indigenous tourism and a number of companies, as part of their corporate social responsibility agenda, have directly facilitated the development of

indigenous tourism ventures. Carr et al (2016) reviewed the challenges and opportunities for sustainable indigenous tourism. Melubo and Carr (2018) stressed that achieving success in indigenous cultural tourism is very challenging unless incorporating specific community-based strategies. It is a powerful tool to promote community development and provide economic benefits (e.g. employment) to the local people (Whitford & Ruhanen, 2016). Thus, governments used indigenous tourism as a socioeconomic growth strategy and development strategy (Ruhanen & Whitford, 2019; Abascal et al., 2016).

Thus, tourism contributes to significant economic benefits to Indigenous people by offering jobs (Amoamo, Ruckstuhl, & Ruwhiu, 2018). It is also perceived as Furthermore, the study by Latip et al (2018); Rasoolimanesh and Ismail (2017) stressed that the benefits gained through tourism activities, including increasing availability of recreational and entertainment opportunities and public facilities, enhance the understanding of own cultural identity and promote preservation and revitalization of arts, crafts and culture significantly influence the indigenous community participation in the tourism activities. In line with this, Hajar and Norlida (2018) pointed out that indigenous tourism products in Malaysia bring positive impacts to the indigenous community, especially when they manage to get an avenue at international markets.

There are several drawbacks of indigenous tourism noted in the literature. For example, indigenous tourism was reported to be controlled by external parties (i.e. government and enterprises), and the operation of indigenous tourism has often been cited failed (Cornell & Kalt, 1998; Eversole, 2003) and not sustainable (Colton & Whitney-Squire, 2010). Meanwhile, the commodification of the culture is also one of the drawbacks.

### **Indigenous Tourism in Malaysia**

The indigenous community in Malaysia represents around 12% of the Malaysian population, most of whom reside in East Malaysia while the remaining are in Peninsula Malaysia (Isa et al., 2016). The indigenous community in Peninsula Malaysia are relatively small, representing only 0.5% (178,000) of the entire population of Malaysia (Department of Orang Asli Development, 2019). They can be categorized into three groups (Abdullah et al., 2015), namely 1) Semang (Negrito), 2) Senoi, and 3) Proto Malay (Aboriginal Malay). Each group has a different language, beliefs, living style, culture and ethnicity (Isa et al., 2016, Abdullah et al., 2015). The geographical location also differentiates the indigenous people. For instance, those who reside near the coastal area are fishermen, while those who reside away from the coastal area are mainly farmers.

Indigenous communities have rich cultures and arts, especially their wood carving (Roddin et al., 2015). In general, indigenous communities are poor (Roddin et al., 2012, 2015), and it is one of the biggest challenges for the government to assist them. The root of the poor is because of the engagement of indigenous communities in traditional agricultural activities and is highly dependent on natural resources (Roddin et al., 2015). Many indigenous people receive assistance from the Malaysian government to improve their socioeconomic conditions. For example, through Regroupment Schemes, some indigenous people have been resettled from rural to urban areas or to nearby settlements (Abdullah et al., 2015). Most of the resettlement was near the forest as most indigenous people depend on the forest as their livelihood. However, the efforts by the government create mixed results as some indigenous people face some challenges in staying in a new environment.

### **Mah Meri Community and Tourism**

The Mah Meri refers to “forest people” who are part of the Orang Asli (the aborigines), which are residing at Carey Island, Selangor, since the mid-1800s (Isa et al., 2016; Lai, 2011). They migrated to Selangor from Southern Johor to escape enemies (Masron, Masami, & Ismail, 2013). They are traditionally rural peoples living near the coastal area and are acknowledged as Orang Laut (ocean people) since they reside near the sea (Masron et al., 2013). They are called ‘the Mask Man’ and produce traditional wood carvings and mask sculptures. Their wood carvings craftsmanship has won several accolades under the UNESCO Seal of Excellence programme. On the other hand, the women in Mah Meri were involved in weaving activities (Kunasekaran et al., 2013).

The population of Mah Meri are about 3,762 (Department of Orang Asli Development, 2019), approximately 2.1% of the total Orang Asli population. They speak *Besisi*, a native language initiated by the Mon-Khmer’s language family (Carey, 1976). Previously, the Mah Meri depended on the forest and river to earn their livelihood. However, currently, they are involving themselves in tourism and working in the palm oil factory (Lai, 2011; Majin et al., 2011).

The life of Mah Meri is relatively traditional, and they have unique beliefs and animistic beliefs. They ‘believe that humans, plants, animals, and even inanimate objects possess spirits, which interact with their daily lives. They say that ancestral spirits cursed plants and animals to become food for humans’ (Isa et al., 2016, p.1014). The celebration of the Mah Meri ‘Mahmeri Ancestor Day Festival’ has been included in the State government’s tourism calendar (Tourism Selangor, 2019).

In Carey Island, there are five villages (e.g. Kampung Sungai Bumbun, Kampung Sungai Rambai, Kampung Sungai Judah, Kampung Sungai Kurau, Kampung Kepau Laut), and Kampung Sungai Bumbun is the main tourism village (Majin et al., 2011) and well-established tourism destination (Kunasekaran et al. 2013). Previous research was carried out in Mah Meri (Isa et al., 2016; Lai, 2011; Majin et al., 2011; Roddin et al., 2015). Roddin et al (2015) factors that influence the success of the Mah Meri community in the tourism sector. They reported seven internal factors and ten external factors that contributed to the success of tourism. The Mah Meri indigenous people are aware their culture has been commodified as an economically valuable asset used to yield financial returns through tourism.

Tourism has inevitably impacted the Mah Meri community (Majin et al., 2011). In term of socio-economic impacts, tourism contributes to income and uplift the quality of life of the Mah Meri community. Cultural impacts are the most impactful on the Mah Meri community’s quality of life (Majin et al., 2011). Thus, the attitude towards tourism development in Carey Island is positive, and they support tourism.

Mah Meri Culture Centre (MMCC) is a private commercial enterprise that was established in 2011 by a nonindigenous businessman. The Village presents visitors with indigenous-style structures, wood and stone carvings, handicrafts and dance performances, mostly built and performed by craftsmen and artists. The Nyireh timber used for woodcarving suffered great depletion. Therefore, there is a conservation activity among the visitors: tree planting. MMCC receives assistance from the State and Federal Governments. Further development was undertaken in partnership with the local government and funded by both State and Federal Governments. MMCC has been the recipient of government funding. Mah Meri Cultural Village could be competitive since it offers indigenous culture as an element of its tourist attractions. MMCC is open daily from 9:00 am to 5:00 pm and offers various tour packages.

There is also a resource centre for visitors to understand the ritual and cultural studies.

**Residents’ perceptions towards Impacts of Indigenous Tourism**

Many indigenous destinations have transformed their economies by introducing tourism with indigenous culture as the main attraction. However, a lot of indigenous people are impacted by tourism activities (Liu & Lu, 2014). Yet, many have experienced negative costs, causing threats to the sustainability of indigenous tourism. However, the social structure, economic conditions, and environment unavoidably suffer from the impact of tourism activities. Even though indigenous tourism has potential advantages, some studies also highlighted the negative impacts of tourism on the indigenous community. Similarly, although numerous developmental goals for indigenous communities were proposed to maximise the positive impacts and reduce the negative impacts, it is not easy to achieve sustainable balance (Wu et al., 2017). The following sections discuss the economic, socio-cultural, and environmental impacts of indigenous tourism from both the positive and negative side.

**a) Economic impacts of Indigenous Tourism**

Tourism brings significant impacts on a various degree (Weaver, 2010). Table 1 summarises the positive and negative impacts of indigenous tourism.

Table 1

*Possible Positive and Negative Economic Impacts of Indigenous Tourism*

Positive impacts	Negative impacts
<ul style="list-style-type: none"> <li>● Broader economic base</li> <li>● Creation of employment</li> <li>● Higher incomes</li> <li>● More varying occupations</li> <li>● Stable leadership and vision</li> <li>● Willingness to form partnerships with other Aboriginal communities and with the private sector in the pursuit of economic opportunities.</li> <li>● Legitimacy of economic activities to the community</li> <li>● Strategic use of available resources</li> <li>● Qualified labour pool</li> <li>● Appropriate interplay between politics and business</li> </ul>	<ul style="list-style-type: none"> <li>● Capital outflows</li> <li>● Costs of development</li> <li>● External control</li> <li>● Increased dependence</li> <li>● More seasonal jobs</li> <li>● Rise in local prices</li> <li>● Legislative and regulatory aspects of the government Act</li> <li>● Limited access to lands and resources and capacity to develop those resources</li> <li>● Lack of institutional mechanisms to support economic interactions</li> <li>● Insufficient education and training</li> <li>● Limited access to capital</li> <li>● Non-competitive physical infrastructure</li> </ul>

(Source: Petterson, 2006; The Standing Senate Committee on Aboriginal Peoples, 2007)

The positive impact in the economic dimension is tourism could generate income for the country from the direct and indirect taxation from the tourists and the local indigenous community (Song, 2008; Xie, 2003). From a macro level, the arrival of tourist comes with foreign exchange earnings. For example, in India, the foreign exchange earnings through

tourism grew by 27.8 per cent (Kiran, 2017). Apart from that, tourism is known for its immediate employment contributor (Colton & Whitney-Squire, 2010). As a result, the local indigenous community can live a better life when they have income (Strickland- Munro & Moore 2013).

In addition, the young indigenous communities do not have to move to the city or out from their village to find jobs (Lin & Chang, 2013). In rural northern Scandinavia, motorized reindeer herding practices had affected Sami people likelihood (Pettersson, 2006). This directly forced Sami people to look for an alternative job such as tourism to increase their standard of living (Pettersson, 2004). Meanwhile, the infrastructure could be beneficial to both the local community and tourists. For example, in Lan Yu, Taiwan, Tao indigenous people agreed tourism brings better infrastructure (Backman et al., 2011).

In a study of Cou indigenous community in Shanmei, Taiwan, indigenous tourism was reported to contribute to better likelihood (Tao & Wall, 2009). Many locals have involved in tourism businesses by offering accommodation and foods and beverages services. Most of the facilities in the campsite are built using local materials. However, the negative impact of tourism is leakage. In northern Scandinavia, Sami entrepreneurs often rely on their partners and suppliers (Pettersson, 2004). If their partners and suppliers are situated away from the local area, there is a tendency of capital outflow and reduce control over tourism. In term of economic development, although tourism employs locals, Djabugay tribe community in Australia feel that they were not gain extensive economic advantages (Dyer et al., 2003).

The escalation of tourist expenditure resulted in an increase in price at the tourist sites, causing the indigenous people to have difficulty to earn their livelihood and, therefore, exacerbating the poverty rate (Liu & Lu, 2014). Tourist arrival can cause an increase in prices to both the basic services and goods. This will become a burden to the local community who does not earn much. Not only to the services and goods but the real estate demand, the cost to build homes and land values will also increase when a destination attracts tourist (Lin & Chang, 2013). Large companies and developers will take the opportunity to buy the land and develop. This will affect the local community buying power of land and houses as the price increases.

Tourism may also cause a destination to become economically dependent. The local community may not cope when there are a natural disaster, economic recession and changes in travel patterns. The characteristic of the job is seasonal; therefore, the local community may suffer when it is low season. In Hainan, China, it was reported that the central government emphasized more on the economic benefits than cultural sustainability (Xie, 2003). Seasonality is also one of the negative impacts. For example in northern Scandinavia, where the peak season normally falls on summer months and during off-peak season, many Sami tourism services are closed and Sami people focus on other economic activities such as reindeer herding (Pettersson, 2006).

It is a powerful tool to promote community development and provide economic benefits (e.g. employment) to the local people (Whitford & Ruhanen, 2016). Thus, governments used indigenous tourism as a socio-economic growth and development strategy (Ruhanen & Whitford, 2019; Abascal et al., 2016).

**b) Socio-Cultural of Indigenous Tourism**

Similar to economic and environmental impact, indigenous tourism contributes to both positive and negative social impacts. Table 2 outlines the positive and negative social impacts of indigenous tourism. It was once fashionable for people to be exhibited at international fairs and exhibitions, this is what Hunter (2004) term ‘human zoo’. Hunter (2004, p.294) defined the human zoo as a demonstration of colonial power and its accompanying discipline of anthropology and was reserved for adequately ‘primitive’ indigenous peoples’. In his study of indigenous people in Taiwan, the findings suggested that indigenous people see themselves as cultural ambassador rather than cultural performers in sharing their culture.

Table 2  
*Possible Positive and Negative Social Impacts of Indigenous Tourism*

Positive impacts	Negative impacts
<ul style="list-style-type: none"> <li>● Better social services</li> <li>● Increased knowledge among visitors</li> <li>● Improved self-confidence</li> <li>● Improved situation for women</li> <li>● More contacts</li> <li>● Preserved indigenous culture</li> </ul>	<ul style="list-style-type: none"> <li>● Alienation</li> <li>● Commoditization</li> <li>● Criminality</li> <li>● Disneyfication’ of culture</li> </ul>

(Source: Petterson 2006)

The positive impact of tourism in the social and cultural dimension is supporting peace. The local community interact with tourists from diverse backgrounds which creates mutual understanding among the different ethnicity in the world (citation). When tourists visit a destination, there is a cultural exchange between them and the local people. From there, they get to know each other’s culture which creates mutual understanding to reduce prejudice. If properly managed, indigenous tourism can deliver a good opportunity for indigenous communities to preserve cultural pride (Pratt et al., 2013)

Sami indigenous tourism was found to have the prospect for the transfer of knowledge about the Sami culture to visitors (Petterson, 2006). In Belize, tourism has contributed rediscovery of Mayan culture (Medina, 2003). As a result of tourism, many traditional cultures (e.g. songs and dances) were reproduced. Similar to Taiwan, indigenous tourism helps the rehabilitation of damaged or lost cultural traditions. This is termed by Hipwell (2007) as an “ecocultural renaissance”.

The indigenous local communities also benefit from infrastructure improvements such as roads, sewerage, public transport, hospitals and many others. The local community children could get an education as the economy improve. This helps to reduce urban relocation whereby the locals migrate to the city to look for jobs. The demands of indigenous tourism, encourages the government to build more public facilities (Liu & Lu, 2014). This indirectly benefits the local indigenous by improving their quality of life. Apart from that, the culture and traditions are being protected as the local community passes down the traditions to their younger generation to be shown to the tourists. This activity could strengthen the local community as they work together to make the festivals and events successful. The local community can also sell their traditional handmade arts and crafts to tourists.

However, the negative impact changes in systems and behaviour. There is a potential negative 'disneyfication' of indigenous culture (Pettersson, 2006). Due to the social and cultural exchange with the tourists, they may want to live like the tourists. This could threaten the indigenous identity. Although Sami tourism brings significant economic benefits to many Sami people, tourism has potentially affected the indigenous culture due to an excess of commercialization or 'disneyfication' (Pettersson, 2006). When a cultural destination became a tourism destination, the sacred site may not be respected as it is shown to them as a product. Not only that, the art and craft may change to a simpler version for the local community to produce more in a shorter period. The art and craft such as souvenirs may change forms such as fridge magnets, keychains and other types to cater to the demand of tourists.

There is also a tendency to increase the exploitation of indigenous people (Lin & Chang, 2013). Several drawbacks of cultural impacts were noted in Djabugay tribe in Australia, such as the degradation of Djabugay culture, abuse of the Djabugay community, and minimal and superficial tourism (Wu et al., 2017). The most crucial part is the performance and traditional ritual, it might be simplified and modified to create an atmosphere that will capture the tourist's heart and attention. The cultural meanings of the Tao tribe were reported to have suffered qualitative changes (Liu & Lu, 2014). Sometimes, the local community can be irritated by the tourist behaviour. Tourist tends to not behave as if they are not in their own place, they might disrespect and do actions such as littering and many others.

In Hainan, China, it was reported that promotion efforts by the provincial government had commodified the Li culture due to the different administrations occupied by Han people, who are not familiar with the indigenous culture (Xie, 2003). Meanwhile, the participation of indigenous people in decision-making is nearly missing. In Sami indigenous tourism, the Sami image in media and marketing provides falsify image of the indigenous culture. This has caused unrealistic expectations for first-time visitors and caused dissatisfaction (Müller & Pettersson, 2005). Meanwhile, the lifestyle of indigenous people may also be influenced by visitors. This has caused the indigenous people to change their lifestyle in order to follow the visitors' lifestyle (Pettersson, 2006).

In the Solomon Islands, tourism development has caused the absence of ancestral areas for fishing and religious rituals (Rudkin & Hall, 1996; Sofield, 1996). Another study carried out by Yang and Huang (2000) revealed that the indigenous community in Taiwan only received little economic benefits, but the negative cultural impacts gained such as distorted cultural presentations and change of lifestyle were evidenced. This is highlighted by Yang and Huang (2000) in their statement:

'Machine-made products resembling handicrafts are mass-produced and sold; dances and songs are staged to please visitors, and some businessmen are eager to gain competitive advantages without respect for culture and traditions.

### **c) Environment Impacts of Indigenous Tourism**

From the environmental perspective, tourism can impact both positively and negatively. The potential positive and negative environmental impacts of indigenous tourism are summarised in Table 3



Positive impacts	Negative impacts
<ul style="list-style-type: none"> <li>● Increased environmental awareness</li> <li>● Protection of wildlife and environment</li> <li>● Visitor management strategies</li> </ul>	<ul style="list-style-type: none"> <li>● Erosion</li> <li>● Littering</li> <li>● Noise</li> <li>● Overcrowding</li> <li>● Pollution</li> </ul>

(Source: Petterson, 2006)

The environmental impact focuses on tourism development and preservation (Kim et. al., 2013). The positive impacts of tourism include the conservation, restoration and protection of natural and historical buildings. The role of indigenous individuals in conservation projects was examined by (Popova, 2014). Tourism helps to create greater awareness of the need to preserve the environment to capture its natural beauty for tourists. Furthermore, tourism could upgrade a destination's infrastructure.

Some studies report the efforts done by indigenous people to protect their resources, such as fish species. For example, indigenous people's protect the endangered species of fish where this type of fish species is vital for local cultural and substance practices (Aswani & Hamilton, 2004). Similarly, in Australia, Malanbarra Yidinji indigenous people protect culturally important fish species from fish poisoning and invasive fish management (Gratani et al., 2011). In New Zealand, efforts were done to protect Kereru, a bird species which has considered important in Maori tradition (Lyver et al., 2009). To cater to the needs of tourists, the

government will upgrade the infrastructure of a destination to ensure a destination is accessible. The improvement of infrastructure does not only benefit the tourists but also the local community.

As mentioned earlier, indigenous tourism normally takes place in rural areas with sensitive ecosystems (Zeppel, 1998). When the level of visitors is greater than the environment's ability to cope, negative impacts may occur. The first impact is the destruction of natural resources. The National Park of Thailand, Koh Tachai is closed down due to coral bleaching and damage to the marine ecosystem (Olivar, 2016). Not only that, when the tourist number exceeds the carrying capacity, problems such as pollution will occur too. The natural capital was found to eroded resulting from the development (Stoeckl et al., 2013). Tourism affects the fragile environment in which the reindeer-herding Sami live (Petterson, 2006).

Water pollution is the most crucial pollution since water is normally polluted from the waste produced by tourists and outlets such as hotels. For instance, some of the hotels on an island will discard the waste into the sea. This action not only causes sea pollution but also puts pressure on endangered marine species. Apart from that, tourism also causes land degradation. When land is being developed for infrastructure, hotels or attractions, it will add pressure to the natural resources and landscape. Wildlife may lose their homes in the process. The tourism industry consumes a lot of resources, such as water especially. There is an overuse of water resources in the hotel, swimming pool, water theme park and golf course. For example, it was reported that a golf course uses 800,000 gallons of water per day (Lurie, 2015).

Backman et al (2011) reported some environmental and social impacts (traffic noise, litter) in Lan Yu, Taiwan resulting from tourism development. Environmental injustice has brought an uneven burden on low-income indigenous communities in Taiwan (Morais et al., 2005). For example, San-Chan tribe (Chen, 2016) experience negative environmental impacts due to

mass tourism. The locals decided to close the creek to prevent outsiders and insiders from illegal fishing. The locals took numerous efforts to protect the use of the creek, including forming a patrolling team to monitor illegal fishing and to persuade local villagers not to fish in the creek.

In Orchid Island, Taiwan, countless Pandanus trees were cut to widen the highway, resulting threat to the population of coconut crabs and bird species (Liu & Lu, 2014). The development projects by Taiwanese government have put pressure on the environment and caused negative impacts such as the destruction of the forest, water loss and soil erosion, and damage to traditional underground houses.

### **Data Collection**

A total of 230 questionnaires were distributed among the indigenous community of Mah Meri in Carey Island from April 2019 to August 2019. Although the sample size calculator suggested 380 as a suitable sample size for this study, the researcher only manage to distribute 230 questionnaires due to the willingness of the community members to participate in the survey. Sedgwick (2014) pointed out that the non-responses bias occurs in the study whenever there is a significant difference between those who were provided with a complete answer to the survey questionnaire and those who did not. Several reasons such as targeting wrong respondents, respondents refusing to participate in the survey, ignoring the survey questionnaires, poorly structured surveys, and forgetting to return the questionnaire once complete led to this non-response bias (Sedgwick, 2014; Lahaut et al., 2003). Out of these 230 questionnaires, 210 questionnaires were returned. Eight of them were incomplete as respondents failed to answer social media and sustainability questions. As a result, a total number of 202 responses were usable in this study.

### **Data Analysis Method**

The quantitative data analysis process consists of several stages such as coding the response, screening the collected data, and selecting the suitable data analysis process (Sekaran and Bougie, 2013). The data screening process was performed to detect the errors in the data entry and investigate how the collected data appropriately meets the statistical assumptions, including descriptive statistics of constructs, missing data, treatment of outliers, normality and reliability. A number of statistical analyses of SPSS were applied in this study to examine the data and hypotheses testing. Finally, Structural Equation Modelling (SEM)- PLS (Partial Least Squares) analysis was executed to evaluate exogenous and endogenous constructs' relation.

### **Analysis and Findings**

#### **Socio-Demographics Profile**

Descriptive analysis was used to discuss the respondent's profile information which was collected from Section A of the questionnaire. The frequency and percentage of each characteristic are listed in Table 4. Out of the total 202 target respondents, 62.9 % (127) were males and 37.1% (75) were females. The majority of the respondents' age ranged between 27 to 36 years old (40.6%). It followed respondents' age ranged between 37 -46 (31.2%); 17-26 (23.8%) and 47-56 (4.4%). 86.1 % (174) of respondents who participated in this study practising animism and the rest 13.9% were Islamic. In terms of material status, around 66.8% (135) respondents were married, followed by 30.7% (62) single and 2.5% (5) were widows. Observing the educational level, 63.9 % (129) of the respondents were primary educators;

30.7% (62) were secondary educators and 5.4% (11) were graduated. Furthermore, 35.1% (71) respondents were earning monthly income between RM 301- RM 600; followed by 19.3% (19) between RM 1- RM300; 17.8% (36) between RM 901-RM 1200; 16.8% (34) between RM 601- RM 900; 4% (8) between RM 1201- RM 1500 and 3.5% (7) between RM 1501 -RM 1800. Around 66.8 % (136) claimed that they played a role as workers; 29.2% (59) referred to themselves as owners and 4.0% (8) refused to provide an answer to this question.

Table 4

*Socio-Demographic Profiles*

	Frequencies	Percentages
<b>Gender</b>		
Male	127	62.9
Female	75	37.1
<b>Age</b>		
17 – 26	48	23.8
27 – 36	82	40.6
37 – 46	63	31.2
47 – 56	9	4.4
<b>Religion</b>		
Islam	28	13.9
Animisme	174	86.1
<b>Marital Status</b>		
Single	62	30.7
Married	135	66.8
Widow	5	2.5
<b>Educational level</b>		
Primary	129	63.9
Secondary	62	30.7
Graduate	11	5.4
<b>Income level</b>		
No income	7	3.5
RM 1 – RM 300	39	19.3
RM 301 – RM 600	71	35.1
RM 601 – RM 900	34	16.8
RM 901 – RM 1200	36	17.8
RM 1201 – RM 1500	8	4.0
RM 1501 – RM 1800	7	3.5
<b>Ownership</b>		
Owner	59	29.2
Worker	136	66.8
Refused to answer	8	4.0

Positive and significant effects were found for economic gain on both the perceived economic dimension, socio-cultural and environmental impacts of tourism among indigenous people. The results were consistent with several previous studies that have reported positive effects for economic gain on residents' perceptions (Andereck et al., 2005; Andereck & Nyaupanehas, 2011; Latkova & Vogt, 2012; Rasoolimanesh et al., 2015). The economic gains from tourism can help to alleviate poverty within indigenous communities. Thus, residents who stand to gain the most economic benefits from tourism tend to perceive significantly more positive economic impacts and tend to more strongly support tourism development

### **Conclusion**

Studies by Kunasekaran et al (2015; 2017) confirmed there is a significant relationship between economic, socio-economic and environmental towards tourism development. Crippen and Salevurakis (2019); Reid and Stephen (2004) revealed that the tourism activities conducted in rural and community-based areas help to generate economic and social benefits for local communities through employment opportunities. Local communities illustrated full commitment and support to tourism development in their destination because the development brings more positive effects to the communities (Gunawijaya and Pratiwi, 2018). Baum et al (2016) and Berno (2007) further added that the communities' unique culture and knowledge significantly support the development

### **Acknowledgement**

This research was funded by Universiti Teknologi MARA Puncak Alam Campus, Selangor Branch under the DUCS Grant 3.0

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