Ecotourism development in Penang Hill: a multi-stakeholder perspective towards achieving environmental sustainability

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Abstract

Located in one of the famous natural and cultural tourist destinations of northern Malaysia, Penang Hill serves as an ideal destination for both local and international tourists. The objective of this study was to understand and explore key stakeholders perspectives to enhance management for the aim of *conservation, economic development, and recreation* in Penang Hill. Data was collected from three key stakeholders of Penang Hill using semi-structured in-depth interviews. Stakeholders showed robust interests in *environmental protection, cultural conservation, economic activities, awareness, and empowerment*. This paper concludes by stating that Penang Hill is under strong management, and stakeholders are continuously engaged in the destination. The management authority collaborates with the key stakeholders of Penang Hill and incorporates their interests and viewpoint to ensure the ecotourism process goes smoothly and Penang Hill becomes one of the top ecotourism destinations.

Keywords Stakeholder · Protected area · Ecotourism · Tourist impact · Malaysia

Introduction

Ecotourism helps to promote responsible tourism in natural regions that helps preserve the environment, encompasses learning, generates awareness, and sustains the indigenous community's prosperity (TIES 2015). Ecotourism has an estimated travel growth of 5% and makes up almost 20% of total international tourism (Charters and Saxon 2015; Das 2011). Ecotourism has a positive environmental, economic, and cultural influence on the area it resides in. Any undesired modification in the destination can cause alterations and disruption to the natural environment's dynamicity (Abdullah et al. 2018).

If executed carefully, ecotourism activities can positively impact the environment of the destination (Buckley 2009).

Some of the main positive effects of ecotourism in the destination are natural resource conservation, environmental protection, cultural preservation, and economic enhancement (Ashok et al. 2017). On the other hand, if it is not adequately managed, it can also generate negative impacts such as misuse of natural resources, the excessive number of tourists, destruction of wildlife habitats, reduction of biodiversity, and exceeding the capacity of the destination (Romadhon et al. 2014).

Ecotourism implementation and its long-term success in a destination are not simple. It involves multiple stakeholders who have diversified interests and influence level. Past studies have identified that sustainable tourism development without incorporating the stakeholders' interests and their perspectives do not favor stakeholder participation due to which sustainable tourism is severely impacted (Byrd et al. 2009; Su et al. 2014; Pyke et al. 2018; Chen et al. 2020). It is imperative to analyze and manage the stakeholders to achieve sustainable ecotourism because they play a crucial role in developing sustainable ecotourism, especially in a biosphere reserve. Stakeholder theory plays a vital part in the management of the stakeholders. The implementation of stakeholder theory by understanding stakeholders has been far extended from its original application in strategic management and business corporations to several fields of enquiry, including health and social service research (Hyder et al. 2010); tourism planning (Jamaliah and Powell 2018; Byrd 2012; Rastogi et al. 2010);

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environmental management (Aaltonen 2011; Reed 2008); protected area management (Rastogi et al. 2010); and as well as, visitor attraction management (Garrod et al. 2012). Understanding the stakeholders' interest, influence, and management techniques is seen as a way of generating information about "relevant actors" to understand their behavior, concerns, agendas, and impact on decision-making processes (Brugha et al. 2000).

Penang Hill is also a type of destination that comprises of multiple stakeholders. Penang Hill is an ideal place for nature lovers as it offers excellent eco attractions. Before the pandemic Covid 19 happened, thousands of visitors visit Penang Hill every day because of great attractions like the rainforest, lush flora, granite boulders, and an outstanding view of the city. The need to properly manage ecotourism in Penang Hill's area to reduce the adverse effects on the environment, culture, and economy, and involving the stakeholders is pivotal for its sustainability. A nature-based destination such as Penang Hill makes it ideal for studying key stakeholders' perspectives and interests to achieve ecotourism sustainability.

The key players for implementing and managing ecotourism are the stakeholders (S. Stoll-Kleemann et al. 2010; Pasape et al. 2013; Boiral and Heras-Saizarbitoria 2017; Osman et al. 2018), and their collaboration is vital for successful implementation of ecotourism in the area of Penang Hill. Byrd (2012), McComb et al. (2017), and Mihalic (2016) noted that difficulties in understanding issues among stakeholders are the main barrier in achieving sustainable ecotourism. To make stakeholders work towards the same goal, it is essential to consider their interests and power so that their roles can be properly handled and prioritized (Wei and Yang 2013; Byrd 2012; Missonier and Loufrani-fedida 2014; Carius and Job 2019). Failure to understand stakeholders creates a lack of trust among stakeholders and limits their understanding of the perception of their power and their relationships. This may contribute towards improper roles being formed and misunderstanding of the engagement levels for each stakeholder group (Kenawy et al. 2017). Understanding and managing stakeholders according to their interest and influence is crucial for long-term sustainability of ecotourism destination. All stakeholders have their roles, interests, and influence on ecotourism destinations, due to which they cannot be ignored. The development and management of ecotourism destinations for the long-term sustainability will not work well if there is no active role and interest involved for each stakeholder (Simpson 2008; Wei and Yang 2013). However, the existing sustainable ecotourism models have ignored analyzing of the stakeholders through which stakeholders interest, involvement, management, and their support can be determined (Chan and Bhatta 2013; Missonier and Loufrani-fedida 2014; Natalia et al. 2019; McComb et al. 2017). Limited

number of studies are available that research on the impact of stakeholders interest and influences on the ecotourism destination for the long-term sustainability. Therefore, identification of the stakeholder interests and influences could help facilitate efforts towards the development of ecotourism and protecting the uniqueness of Penang Hill. Moreover, there is no past study conducted on Penang Hill for achieving sustainability in ecotourism by understanding stakeholders and their viewpoints. Thus, this study consequently focuses on addressing the perspectives of three main stakeholders (management authority, local community, and business community) in terms of their interests and level of influence on the development of ecotourism in Penang Hill. By doing so, this study seeks to understand stakeholders for their better management so that they can be aligned towards achieving ecotourism sustainability in Penang Hill.

This research paper consists of six sections. This first section focuses on the study's background and justification, including the research focus for this paper. The next section explains the literature and elaborates on the studies that focused on sustainable ecotourism development with stakeholders' inclusion. The third section of this research describes the methodology adopted and is followed by illustrating the results in the form themes that emerged from the interviews. The findings are then correlated with the prior researches through discussion and followed by the implications section. The last section offers a conclusion and recommendations.

Literature

Ecotourism emerged because of mass tourism's adverse effects (Ballantyne and Packer 2013; Morgera et al. 2017). It also helps to develop environmental awareness among the people of the tourism destination (Dam 2013; Picard 2015). In the 1980s, Ceballos-Lascurain defined ecotourism and, it was considered as the most acceptable definition of ecotourism in which he states ecotourism as "travelling to relatively undisturbed or uncontaminated natural areas with specific objectives of studying, admiring, and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in these areas" (Chiutsi et al. 2011; Coria and Calfucura 2012). However, the comprehensive definition of ecotourism is provided by the International Ecotourism Society (2015) in which ecotourism was defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people and involves interpretation and education" (TIES 2015). No matter what the definition was, it always included three specific aims that are (1) it should be nature-based; (2) tourist interactions should be focused on learning; and (3) it should be based on values and practices linked with environmental, economic, and socio-cultural sustainability (Martini

et al. 2017; Sarhan et al. 2016; Morgera et al. 2017; Walter 2013). Ecotourism is considered to be a sub-sector of sustainable tourism (Sarhan et al. 2016; Rivera and Gutierrez 2018). Ecotourism is a type of travel, which includes visiting the natural regions to acquire knowledge or carrying out environment-friendly activities, providing nature-based experience, and enabling the community's economic and social growth. It also aims to understand natural surroundings, flora, fauna, landscapes, and the area's cultural heritage (Kiper 2013; Sarhan et al. 2016).

Ecotourism goal is to preserve the environment, conserve the resources of the area, and make sure that the resources are utilized in such a way that they remain sustainable and keep on bringing economic benefit to the destination (Kiper 2013; Mendoza-Ramos and Prideaux 2018). Ecotourism offers a substitute for mass tourism and tries to minimize the impact of tourism, such as cultural loss, environmental destruction, and social instability in the area. Moreover, the researchers also identified that ecotourism enhances the experience of tourists and people residing in the tourism destination, promotes the local culture of the area, and increases community participation (Anup et al. 2015; Bhuiyan et al. 2011).

Today ecotourism is one of the fastest-growing types of tourism that helps in contributing towards sustainable tourism development. It is widely accepted worldwide and employed by governments to develop sustainable tourism development (Vejsiu and Stafasani 2017; Stefanica and Vlavian-Gurmeza 2010). Globally ecotourism industry contributes billions of dollars per year and has helped numerous countries to boost their economies. Malaysia is also one of these countries that has the potential to become one of the best ecotourism destinations in the world. Malaysia is located in a tropical climate on a green belt. The Malaysian government is serious in promoting ecotourism since 1996 when it first launched the National Ecotourism Plan. Ecotourism was also notified in the Eighth Malaysia Plan, where the government launched 20 ecotourism projects in the country worth RM 14.2 million. Now, subsequent National Ecotourism Plan (2016–2025) is in place, enhancing ecotourism development in the country. Other than governmental bodies working on ecotourism development in Malaysia, different stakeholders such as travel agencies, academia, and individuals have formed the Malaysian Ecotourism Association (MEA) in 2007 for enhancing ecotourism development in the country. These continuous efforts by the government and people residing in Malaysia have helped Malaysia become a globally recognized ecotourism destination. At the 5th National Geographic Traveler Awards in 2015, Malaysia was awarded the best eco vacation destination (Elite 2016).

With the continuous rise in the number of visitors coming to Malaysia for visiting natural regions, it is essential to eradicate adverse eco-friendly effects that tourism might pose. As reported by studies such as Pahang National Park (Shuib and

Abidin 2002), Kinabalu National Park (Ghazali and Sirat 2011), and Penang National Park (Sato et al. 2013), the nation of Malaysia also has a robust developing interest in visiting protected areas. The primary focus of the studies mentioned above was on understanding the viewpoint of one stakeholder group. Byrd (2012) stated that different stakeholders could perceive things differently. It is vital to include key stakeholders in the development and management of ecotourism to minimize tourism environmental impacts, and ecotourism benefits can be enhanced (Abdullah et al. 2018). Incorporating interests and viewpoints of key stakeholders ecotourism development and management of the destination will guide to achieve sustainability in the destination (Byrd 2012). Stakeholders can be anyone such as allies, beneficiaries, risk providers, recipients, or even people or entities from the past and future. They could be influenced by the business or the project and also have the ability to influence back. These stakeholders not only have a substantial stake in the project that is taking place but they also have a significant interest in that project (Freeman 2010). Also, Garrod (2003) and Diamantis (2018) stated that stakeholder theory plays a vital part in the development of an ecotourism destination and has also proved to be an efficient management tool for the identification of key stakeholders who can be involved in the ecotourism development; therefore, stakeholder theory is the key theory that guides this research as well.

The utility of the stakeholder theory in tourism originates from the foundation that successful implementation and planning of any project depend on the involvement of different stakeholders like organizations, communities, and those individuals who are impacted by that project or they can influence that project (Lalicic 2018; Komppula 2016; Wei and Yang 2013). The integration of stakeholder theory in the field of tourism can help in developing the new strategies that can lead to sustainable tourism development with different collaboration practices such as stakeholder integration in decision making, stakeholders involved in the management, including international and local communities to provide economic benefits to the local communities of the area (Ellis and Sheridan 2014; Waligo et al. 2013).

Sustainable tourism development literature also emphasizes stakeholder identification, power estimation, interest determination, and strategy development to improve stakeholder relationships, management, prioritization, and categorization for better understanding between the stakeholders (Sheehan and Ritchie 2005; Timur and Getz 2008). Understanding the views of stakeholders and their governance has been recognized as a crucial phase towards achieving sustainability in a tourism destination and that is why the researchers have also considered it essential to achieve sustainability in ecotourism destination as well (Getz and Timur 2005; Riahi 2017). For this study, stakeholders represent those factions or entities linked with sustainable tourism development plans in

Penang Hill, and hence can influence or are influenced by the decisions regarding those activities or projects taking place in Penang Hill. Understanding the stakeholders has positively contributed to enhancing the knowledge of tourism sustainability (Waligo et al. 2013; Salman et al. 2020). In the past, many studies such as Byrd et al. (2008), Vernon et al. (2005), Waligo et al. (2013) have stressed understanding and involving stakeholders for making an ecotourism destination successful. It is because of the continuous efforts of the researchers; tourism literature has identified stakeholders into six distinct groups such as tourists, government, industry, local community, educational institutions, and special interest groups (Mason 2003; Getz and Timur 2005; Waligo et al. 2013).

These stakeholders also play a vital part in the successful environmental management of the destination. To manage an ecotourism destination successfully is to keep a sustainable growth and balance between environmental, economic, and socio-cultural activities of the destination (Hardy et al. 2002), while environmental management of the park refers to the proper management of the park ecologically and trying to achieve the minimum adverse effect on flora, fauna, and the physical environment of the destination such as natural scenery. The better the destination's management and planning, the better the chances of the destination's success are. The importance of tourism stakeholder management stems from the idea that the effective execution and preparation of any project relies on the input of multiple stakeholders, such as organizations, associations, and individuals who are influenced by the project or have the potential to impact the project (Lalicic 2018; Kompola 2016; Wei and Yang 2013).

Proper understanding of the stakeholders will not only lead to the better management of the destination, but it will also help the destination to become economically and socio-culturally stable. Key stakeholders, such as the local community, play a vital part in achieving sustainability in the area. Researchers such as Salman, Mastura and Diana (2020) have stated that the key stakeholders, especially the local community, should be provided proper education and awareness regarding the ecotourism activities so that the stakeholders are empowered and can give further support to the destination. The primary stakeholders can also influence the destination in different ways, such as disturbing the demand and supply, regulation, tourism management, and human resource shortage. The analysis of the interests and influence of stakeholders offers the starting point for the implementation of a proper stakeholder management approach and the recognition of which stakeholders in the project may be impacted to make a successful project (Byrd et al. 2008; Noto 2018; Van Cuong et al. 2018). The inadequacy of stakeholder management contributes to the hostility of stakeholders to the implementation of ecotourism and leads to substantial duplication and unwanted usage of assets (Salman et al. 2020). It is critical for the

long-term preservation of ecotourism destinations to identify and accommodate stakeholders according to their interests and power of control. Even though stakeholder minutia varies across different destinations, stakeholders still substantially impact tourism development (Getz and Timur 2005; Hall 2008). Regardless of stakeholders' escalating interests in a tourism destination, stakeholder management is still deemed complicated because of the existence of multiple stakeholders with different viewpoints and interests (Ladkin and Martinez Bertramini 2002; Waligo et al. 2013).

Garrod (2003) notes that the stakeholder theory has appeared to be an essential tool for managing ecotourism, since it enables key players to be identified and highlights the need for engagement. Kiper (2013) extends to this and states this happens because of competing interests between various stakeholders during the decision-making phase. This is attributed to stakeholders' multidimensional nature because of differing perspectives, dissimilar interests, and varied nature (Moswete and Darley 2012). Therefore, it is essential to understand stakeholders' perspectives, interests, and level of influence to manage the destination better and bring sustainability (Dodds 2008; Waligo et al. 2013).

Research methodology

This study examines three key stakeholders (management authority, business and the local community) perceptions towards achieving ecotourism sustainability in Penang Hill. In-depth interviews were conducted from these main stakeholders, and their results were analyzed.

Study area

Penang Hill, which is in the line of becoming Malaysia's future biosphere reserve, is the focused study location for this research. Penang Hill is a significant landmark for Penang Island people, and they are proud of it as it was recognized in the year 1800 and is considered the oldest hill resort in Malaysia (Prime Minister's Department 2001). Penang Hill is identified to be the most potential ecotourism site by the government of Malaysia. A visit to Penang Island is incomplete without visiting Penang Hill. Penang Hill offers amazing natural, historical, and cultural sites to the tourists. Penang Hill is also considered very scientifically crucial because of its tropical rainforest, the discoveries of many original specimens of Malaysian flora and fauna and species, and old bungalows from the colonial era. Penang Hill is famous because of the biodiversity, the Habitat Penang Hill extensive forests, and international tourism, making it a perfect place for a biosphere reserve (Prime Minister's Department 2001). Bungalows present in Penang Hill have a unique history, and they add cultural value to the area. People worldwide come to visit

Penang Hill because of its breathtaking view, the cooler temperature, and biodiversity present around the coastal areas (Prime Minister's Department 2001). Penang Hill is a hotspot for both local and international tourists. Because of important natural habitats with high species richness and diversity, Penang Hill has been proposed for becoming a biosphere reserve. Based on biodiversity data gathered to date, 2456 species of plants from 206 families are found here. Around 20 are on the IUCN Red List, including four that are listed as Critically Endangered (The Habitat Foundation 2018).

Penang Hill emphasis on the green business model and its example can be seen through the development of The Habitat Penang hill, which is now one of the famous nature parks and an ecotourism destination. The Penang Hill green concept also helps to promote activities like the Nature trail, Canopy Walk, and night walk. Moreover, there is a strict regulation against plastic use, and there is a proper recycling policy to make sure that no harm is done to the environment.

Penang Hill is managed by Penang Hill Corporation (PHC), which is a statutory body of Penang government. Penang State government created the Penang Hill Special Area Plan (PHSAP) in 2016 to provide guidelines for sustainable development. Even though Penang Hill has become a famous tourist spot, but it still remains modestly developed, thus preserving its uniqueness. This PHSAP plan serves as a master plan for actions that can be taken to strengthen Penang Hill's position as a unique tourist destination and yet at the same time, protect the natural landscape and cultural heritage. The plan also prohibits any kind of development that disrupts the natural environment in Penang Hill. The management of Penang Hill pushes for conservation activities to protect these species and their habitats.

Methodology

A qualitative design was selected for this study because the researcher intends to describe and explore the key stakeholders' interests involved in Penang Hill. This qualitative design has robust philosophical underpinnings and is usually carried out through conducting interviews (Creswell 2017). The advantage of this type of research design is that the description highlights the participants' reality and experiences. The researchers focused on identifying interests and the perceptions of the key stakeholders of Penang Hill. Face-to-face semi-structured interviews were guided by the research objectives with questions addressing the objectives. The participants were interviewed to understand their interests and perceptions regarding ecotourism development and validation was done by secondary sources. This is also in line with Ebekozi (2020) and Styśko-Kunkowska (2014). The researchers confirmed that it allows collecting data from the people who are involved and experienced in the field.

The key stakeholders interviewed for this study belonged to the local community (community leader in Penang Hill), the business community (managing director, The Habitat, Penang Hill), and the management authority (GM Penang Hill Corporation) of the Penang Hill. They were all involved with Penang Hill for more than 10 years and had a good understanding of the Penang Hill situation. The management authority (Penang Hill Corporation) is the custodian of the Penang Hill and takes upon the responsibility of conserving our natural ecosystem and preserving our heritage in Penang Hill. In 2009, by an enactment passed by the Penang State Legislative Assembly, "Penang Hill Corporation" was formed. It was built with the key goals of managing the funicular system and the development of Penang Hill. As the custodian of Penang Hill, Penang Hill Corporation carries the task of protecting the Penang Hill natural environment and preserving the Penang Hill heritage. The community leader of Penang Hill has years of experience in handling issues related to Penang Hill. He is the voice of the people residing in Penang Hill, and he has been working to resolve Penang Hill issues even before the Penang Hill Corporation was not established in the form of a Residents Association. After the formation of Penang Hill Corporation, the Residents Association takes care of all the community related matters on Penang Hill. On the other hand, the Habitat Penang Hill provides the most authentic, diverse, and educational Malaysian rainforest, biodiversity, and environment experience. Millions were spent to complete this project, and it also helped to provide jobs for the community of Penang Hill. It is present on Penang Hill and helps to reconnect with nature in its purest form as you immerse yourself in our 130-million-year-old rainforest. The Habitat Foundation is working with the Penang State Government through PHC and Universiti Sains Malaysia Penang to list Penang Hill as part of a UNESCO Biosphere Reserve under UNESCO's Man and Biosphere Program.

Interviews were conducted with three key stakeholders between March and July 2020. The full identity of the participants was concealed, but the rank of the participants indicated that they were senior officers and had authentic information about the ecotourism development and stakeholders present in Penang Hill. Interviews lasted between 60 and 90 mins. Each interview was recorded and transcribed. The areas that were not cleared lead to the participants' hearing again, which is also in line with Saldaña (2015) for clarity and reducing misrepresentation of the participants' information. The interviewees were selected based on the recommendations from the management authority of Penang Hill. The purpose of this selection process was to incorporate the interests and perceptions of multiple stakeholders to provide rich data (Patton 2014, p.242) that can guide towards better management of the stakeholders through understanding their interests and perceptions. During the interviews, participants were provided

with the chance to expand their discussion and exchange whatever information they had to get productive feedback. The information received from the interviews were transcribed and analyzed using thematic analysis. Thematic analysis was selected because of the flexibility and ability to be applied in a wide variety of theoretical frameworks and research interests (Clarke and Braun 2013).

Results and analysis

In this section of the study, themes were identified and analyzed. Table 1 below shows themes that they considered important by the Penang Hill key stakeholders. Note, in the table and text below, interviewees will be referred by the respective stakeholder group they represent.

Environmental protection

Environmental protection was observed to be the main focus of all key stakeholders. They do not allow any type of activities that can damage the environment. From the interviews with the key stakeholders of Penang Hill, it was observed that even though Penang Hill has improved a lot under the management of Penang Hill Corporation, the key stakeholders still think that environmental management should be handled more efficiently. The management authority of Penang Hill states

“Environmental issues such as deforestation, uninformed clearing by farmers, illegal clearing, opening burning and bungalow owners clearing the slope without proper methodology are some of the identified issues identified and are impacting the area.”

The encouragement of participation from the management authority has led to the increased participation of stakeholders towards protecting the environment. It has led to a shift in the conservation efforts of the stakeholders. The local community also ensures that they follow the directions set by the management authority to protect the environment. According to the community leader

“We try to protect the environment of the Hill. We do not allow any type of burning activity here on the Hill for the protection of the environment and everyone follows the rule.”

The business community also ensures that no environmental damaging activities are taking place in Penang Hill. Moreover, the business community tries to go beyond environmental protection and tries to help conserve biodiversity in the area as well. In the interview with the General Manager of the Habitat Penang Hill, it was stated in the interview that

“A big part of what we do at the park is environmental protection and education. Our mission is to protect and promote biodiversity through conservation research and environmental education of ecotourism.”

Stakeholders understood that the unique flora and fauna present in Penang Hill are the result of the natural environment. They all try to keep a good relationship with the natural environment and try to enhance ecotourism-based activities only.

Cultural conservation

Cultural conservation was observed to be the top priority of the stakeholders of Penang Hill. All stakeholders notified that cultural heritage and cultural values are vital to boost Penang Hill's development economically. They notified the traditional food and products present on the Penang Hill would empower the local community. The management authority stated

“Culture preservation will help to provide financial benefits and empowerment for local people, help in the conservation of biological diversity and cultural diversity through ecosystem protection.”

Similarly, the local community stakeholders also noted the importance of cultural activities by combining with ecological activities and stated

Table 1 Themes generated from interviews

Themes	Stakeholders		
	Management authority	Business community	Local community
Environmental protection	✓	✓	✓
Cultural conservation	✓	✓	✓
Economic support and activities	✓	✓	✓
Awareness	✓	✓	✓
Empowerment	✓	✓	✓

“We should have more cultural and ecotourism activities in the area, especially for children so that they can learn.”

All three major stakeholders also notified that cultural activities are essential for preserving the traditional culture in Penang Hill. The business community stakeholder stated

“A wonderful weekend activity focusing on Penang Hill rich culture and activity for the whole family with many different things to do can help in the preservation and boosting of the culture.”

The business community represented further stated

“Penang Hill has an incredibly diverse cultural and historical destination with beautiful nature and has the potential to become something that is really world class.”

Penang Hill offers great cultural diversity and experience to the tourists. Diversity in the culture can be observed by the tourists as there is an Indian prayer temple and a mosque near each other where the community prays according to their religion. The Penang Hill Mosque brings a touch of Islamic architecture to the otherwise colonial-style buildings on the Hill. Its minarets and domes stand in stark contrast to the surroundings, balanced only by the existence of the Indian temple nearby. The Indian Temple was set up in the 1800s as a small shrine in the start. The Dravidian style of constructing Hindu temples calls for four principal parts. Also, there would usually be a tank of water for use in sacred rituals or for cleansing. Cultural activities occurring in the area and the traditional food available on the Hill helps tourists understand Penang Hill culture. All stakeholders expressed a common belief that they had to preserve the culture and expressed that sustaining nature and culture were interdependent and synergistic for Penang Hill's success as an ecotourism destination.

Economic support and activities

Thousands of visitors come to Penang Hill every day to enjoy its beautiful weather, eye-catching scenery, and to enjoy naturally preserved areas. The economic support and activities theme regarding Penang Hill helps understand how economic activities can help improve the quality of human life in the destination without damaging the environment. The conflict between economic activities and environmental sustainability has always been there, and Penang Hill's management is striving hard to achieve a balance between the two. The key stakeholders involved in the Penang Hill during the interview noted that they do not get any monetary support from the management, but the stakeholders indicated that they get all the

logistic and administrative support from the management authority to strengthen the destination. The business community noted

“We receive all the administrative and logistic support from the management and government.”

Even though the businesses are not booming, but still businesses that run solely on ecotourism activities are very optimistic and the business community stated

“Yes, there is an economic issue but still ecotourism minded operators and stakeholders understand this. Also because of Covid-19, the businesses are losing money but it could also have a positive impact on Penang Hill as an ecotourism destination because people will become conscious and they would understand the importance of protecting the environment.”

The local community also noted the importance of economic activities in Penang Hill and stated

“We need more places like David Brown and Astaka (food court) so that more people are going to get in the business and more work opportunity will be provided.”

Moreover, the local community voice their opinion,

“On holidays, the crowd is not dispersed. There are so many places for people to visit. We need to find cheap and economic ways to disperse the crowd because tourists are not aware of other attractions. Like if you have a cheap common transport or buggy service and activities like theaters, TVs programs showing other parts of Penang Hill, people can enjoy a lot and the Penang Hill community can benefit from it.”

The Penang Hill management authority is prudent regarding the development of new economic activities in the area because they want to protect the Penang Hill environment while maintaining a socio-economic balance in the destination. The management authority has established a Commercial Unit that carefully analyzes the new economic opportunities in Penang Hill and helps to develop economic and employment opportunities in Penang Hill. Another thing that was observed during the interviews was the improvement of infrastructure. It was noted that the Penang Hill infrastructure has improved a lot but still requires improvement on things like the internet and better conveyance.

Awareness

The management authority and Penang Hill business community are working hard to make all stakeholders aware of

ecotourism and its importance. The key stakeholders are all aware of what to do and what not to do because of the management authority and business community efforts. The stakeholders stated that the management is doing ecotourism awareness activities like nature walks, trash walks, Penang Hill heritage forest challenge, nature classroom, bungalow activity, and photography in nature to promote ecotourism.

The business community also puts its complete efforts in educating and in generating awareness in Penang Hill. They coordinate with the management whenever the management wants them to be involved. They also focus on environmental education activities, which they believe is one of their strong pillars. Business community representative stated

“Whenever they want us to be involved, we will always put our hand up. We are happy to be involved. We try to coordinate as much as possible on the planned activities.”

The local community is being trained continuously and being made aware of the importance of ecotourism and the benefits it can bring to Penang Hill. In the interview with the local community stakeholders regarding awareness, it was stated

“Local community is about 90% aware of ecotourism and sustainability. Even like the people who live up here and the bungalow owners; they not only look after the area of bungalow, they even come out a certain stretch to protect other areas and look after the trees also.”

Stakeholders indicated that the awareness is continuously increasing, and stakeholders are now keen on preserving the Penang Hill environment and resources. However, they want to add some activities that can help generate awareness for the tourists, which, as a result, helps smoothen the ecotourism implementation process in Penang Hill.

Furthermore, there are other events like the Penang Hill Festival where the management generates awareness by asking researchers and experts to come to Penang Hill to give information to the people present in the Hill regarding the history, culture, and nature of the area.

Empowerment

Empowerment is the process that explains how groups or individuals gain power, attain access to resources and gain control over their lives (Robbins et al. 2011; Ramos and Prideaux 2014). The management authority of Penang Hill is not only making the local community aware of the ecotourism activities but they are also empowering them by giving them proper training and knowledge in case of any disaster. After the landslide occurred, the management authority has

formed a firefighting team, a rescue team, and an emergency response team. They have also engaged the firefighters to train the people living and working in Penang Hill. The local community stated

“PHC, engaged bomba (firefighters) to train our people, the residents and residence associate committee members.”

It is because of this empowerment in the stakeholders, especially the local community; they are doing team-building events to manage the Penang Hill better. They are trying to arrange educational and heritage walks for school children, which will help them understand nature. Since the community residing in Penang Hill is very aware of the ecotourism activities, they are completely focusing on protecting nature in the area. One example of empowering the local community was observed in one of the interviews conducted with the local community leader, where it was stated

“PHC has given us a nursery on the Hill. So we want to turn that place into a workshop where we will take the fallen trees and use them as signage and these kinds of things.”

In the interviews, it was also observed that guides are also available in Penang Hill free of cost. These guides understand the importance of nature, and they want to make people aware. There is no salary for them but only a donation box. Whoever feels happy with the service can donate, and at the end of the day, guides can get something out of it, but majorly they do it for their love for nature. This type of empowerment helps facilitate community involvement in ecotourism activities and helps to promote the destination.

Discussion

Multiple stakeholders are involved in the implementation of ecotourism in Penang Hill, but the management authority is the one that has the power and guides all other stakeholders. Overall, the stakeholders are happy with the management efforts to preserve the culture and protect Penang Hill's environment. Results indicate that stakeholders are not only eager to protect the environment but also conserve the culture of the area as well. Key stakeholders such as business and the local community understand the importance of preserving the culture and protecting the environment, which is also in line with studies conducted by Sarhan et al. (2016) and Ayachi and Jaouadi (2017) where they indicate that ecotourism supports the protection of the environment, but it is not solely limited to environmental factors only. Acquah (2013) and Vishwanatha and Chandrashekara (2014) also agreed on the above

mentioned point and noted that ecotourism has a positive environment and socio-cultural influence on the area and also helps the area to maintain its cultural identity. Many other scholars such as Acquah et al. (2017); Mammadova (2018); Acquah (2013); and Vishwanatha and Chandrashekara (2014) also agreed on the fact that ecotourism cultural impact on the destination is positive and it helps to promote education, enhances health care, improves regional support, embraces local culture, improves gender equality in the region, promotes infrastructure, and enhances cultural awareness. Furthermore, numerous researchers such as Van Cuong et al. (2017), Mercer et al. (2012), and Baird et al. (2018) have illustrated that the cultural and traditional experience of stakeholders plays an essential role in minimizing the volatility of a tourist destination, due to which stakeholder empowerment is crucial for the sustainability of ecotourism. The local culture of the area defines the intensity of the tourism experience, and ecotourism helps to protect the local culture of the destination. Ecotourism is a type of tourism with a low impact on the environment and local societies.

The economic activities done in Penang Hill are carefully studied by the management and then implemented. The management makes sure that the ecotourism pillars of cultural conservation and environmental protection are not disturbed because of economic activities but still they are enough to boost the economic conditions of the destination and the community both. The management careful analyzing of the economic activities are in line with the Honey (2008) and Akama and Kieti (2007) where the researchers noted that unwanted or uncontrolled economic activities can threaten the biodiversity and environmental condition of the destination and, as a result, will cause in failure of ecotourism in the destination. This is also supported by past studies where they noted that ecotourism tries to promote green sustainable developing strategy by using the minimum amount of natural resources so that the area and the people living in the area both can benefit from it for the long term (Ashok et al. 2017; Agricol 2014; Stefanica and Vlavian-Gurmeza 2010; Nigar 2017). The local community and the business stakeholders are eager to develop new economic activities for the destination, but the management has to carefully evaluate the impact of all the new activities on the environment and destination before introducing any new activity in the area. The key stakeholders, such as the local community, are happy with the economic situation in Penang Hill as it helped them and their children getting jobs and improved their life quality which is also similar to the studies conducted by Hunt et al. (2015) in which they stated that key stakeholders such as local community finds economic advantage because of ecotourism and helps them find employment and also guides to improve their living standards. All stakeholders interviewed, perceived economic activities vital for the sustainability of the destination, but they all also agreed

on the point that these economic activities need to be gradually increase and have to be planned carefully.

Awareness of ecotourism was observed to be an essential key point among all stakeholders interview. The management and the business community both are striving hard to generate awareness not only among the key stakeholders involved but also for the tourists and the general public. They believe that awareness will help to increase the understanding and thus, as a result, will improve collaboration and participation of the stakeholders. Moreover, the key stakeholders also believe that the awareness activities being done in Penang Hill will help to increase the knowledge, especially the local community knowledge and help to avoid environmental degradation, which is also pointed out by studies conducted by Abdullah et al. (2018) and Wondriat et al. (2020) where they highlight that awareness is one of the major contributors to sustainable ecotourism. Furthermore, studies have also highlighted that generating awareness can help to reduce the activities that result in un-sustainability of the area, such as hunting, fishing, and deforestation in the destination (Walter 2013; Diamantis 1999; Kiper 2013; Agricol 2014). Respondents mentioned that awareness is already present among the stakeholders, especially among the key stakeholders, which is very beneficial for Penang Hill's success as an ecotourism destination.

The main aim of generating awareness and encouraging stakeholders to participate is to empower them to take control and understand the ecotourism activities being done in Penang Hill. During the interviews, it was observed that Penang Hill stakeholders possess psychological empowerment, social empowerment, political empowerment, and environmental empowerment. The key stakeholders of Penang Hill had high self-esteem and well-being for ecotourism. They felt that they could assume new roles after training, such as being provided with firefighter training or any other type of training to protect and promote the destination. The wealth is being shared in the destination, and communities present in the Penang Hill participate willingly in all type of activities. The political structure of the community is present where the community can represent its interests. Proper training and guidance is provided to the key stakeholders for enhancing ecotourism experience in Penang Hill. Low impact ecotourism activities are being planned for sustaining Penang Hill as an ecotourism destination. Monitoring of activities and protection of the environment was observed to be a key commonality among the interviewees. In recent years, researchers have also recognized that engagement coupled with stakeholders' empowerment would contribute to improved stakeholder management, resulting in smooth implementation of ecotourism in the destination (Almudi and Berkes 2010; Cobbinah et al. 2017). This is also supported by the study conducted by Ramos and Prideaux (2014), where they have identified the psychological, social, political and environmental factors as key

empowerment indicators for achieving sustainability in the destination. They agree that these factors can result in stakeholders' empowerment and thus lead to a smoother transition towards achieving sustainability in the destination.

Implications

The current study offers some significant theoretical contributions. First of all, by reviewing extensive literature, the exploring and investigation have contributed to the ongoing discussion about the key points and shortcomings towards ecotourism development. Towards this end, the research findings also support the view that ecotourism contributes towards environmental conservation and cultural recovery and enhances the local community's lives. In settings like Penang Hill, where there are diverse communities, ecotourism is strongly dependent on the host community active participation in ecotourism activities just like observed in Penang Hill. The current study suggests that key stakeholders' involvement and collaboration with the management authority can improve relationships among the stakeholders, improve the destination's financial conditions, broaden market opportunity, and increase destination competitiveness, thereby boosting the destination's benefits (Dwyer 2015).

From the practitioners' perspective, this study provides valuable inputs for policymaking, planning, destination management, collaborating, involving, and guiding stakeholders. The study guides in establishing effective collaborations among stakeholders to facilitate ecotourism development, explore the factors that impact participation and collaboration of stakeholders, and finally devise appropriate management tactics to overcome barriers that can hinder ecotourism implementation in a destination.

Conclusion and recommendations

This study shows key stakeholders' perspectives for achieving long-term ecotourism sustainability in Penang Hill through understanding stakeholders. After analyzing the interviews taken from the key stakeholders of Penang Hill, it was observed that all stakeholders are aware of the ecotourism, and they are eager to promote Penang Hill as an ecotourism destination. The management authority of Penang Hill understands the importance of maintaining a balance between economic and conservation activities, due to which they are cautious when it comes to the addition of new economic activity in the destination. All stakeholders are engaged if any new project is being introduced, and stakeholders collaborate happily with the management authority of Penang Hill. The careful approach towards adding new economic activities in Penang Hill explains the slowness of funding for the

improvement of infrastructure, but this approach also guides to protect the environment and conserve the culture. The economic growth can be enhanced by the collaboration of the Penang Hill management and the private sector. This way, they can develop a solution that can improve the destination's economic situation while protecting the environment and conserving the culture.

All the stakeholders agreed that the environment has to be protected, and a proper waste management system is required. It was observed in all interviews that all stakeholders were aware that environmental protection was one of the significant pillars of ecotourism, so they have to protect the environment at all costs, and that is why not even a single tree can be cut down without permission of the authority. The stakeholders want to protect the biodiversity of the area by protecting the natural environment of Penang Hill. Ecotourism strives to ensure socio-culturally responsible, environmentally stable, and economically viable tourism but attaining such instrumental objectives is challenging. The process requires persistent collaboration, support, and partnership from key stakeholders of the destinations.

From the stakeholders' point of view, they were continuously made aware of and involved in all the activities occurring in Penang Hill. Specifically, the community participation was high, and they were eager to participate in ecotourism activities. This helps to increase their engagement and also promotes collaboration among them. Furthermore, stakeholders' awareness also gave them empowerment due to which they can act solely and accordingly to ecotourism rules. They are given proper training about what activities they should do and what not to do. The participation of key stakeholders has increased over the years, and now they actively engage in ecotourism activities in Penang Hill. The key stakeholders are also eager to educate the general public, especially school children, to understand the importance of protecting nature. They are trying to develop environment-friendly activities for the children to understand nature. This type of promotion of ecotourism activities among schools is vital as it will help develop a strong culture among the coming generations.

Nonetheless, Penang Hill, under the management of Penang Hill Corporation, seems to be on the right track. There is a strong trust present between the management and the key stakeholders of Penang Hill, which is very important for Penang Hill's success as an ecotourism destination. Interactions, relationships, and collaboration could be clearly observed among the key stakeholders. Good governance, continuous generation of awareness about collaboration, and ecotourism development have led to speeding up the destination's ecotourism process. Strong community participation is present in Penang Hill, which will help to smoothen the ecotourism sustainability process. More understanding of the local community and finding environment-friendly alternate ways

of making livelihood will surely help make ecotourism sustainable in Penang Hill. The activities done by the management, such as raising stakeholders awareness, building stakeholder capacity, adequately empowering stakeholders, properly integrating ecotourism into the area, ensuring good governance, and conducting regular monitoring and evaluation along with the collaboration of key stakeholders, are helping to protect the environment, preserve the culture of the destination, and at the same time supporting Penang Hill to grow as an ecotourism destination.

Limitations and future research opportunities

The current study has employed a qualitative research method. The use of a single approach might restrain variability in data. Furthermore, to explore and reach a comprehensive understanding of the stakeholders' perspectives, this study explored three key stakeholder groups as a unit of observation. Therefore, since factors that influence stakeholders perspectives are identified in the study, future researchers might take empirical verification using either a mixed method or quantitative research approach to verify the results with different methodological approaches.

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Declarations

Ethics approval The study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards. It is hereby that this manuscript has not been published elsewhere and is not under consideration by another journal.

Consent for publication We confirm that all authors have contributed in manuscript and approved the final version of manuscript. All authors are agreed with its submission.

Competing interest The authors declare that they have no competing interests.

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