Ahmad Salman
Sunway University

Mastura Jaafar*
University Sains Malaysia

Diana Mohammad
University Sains Malaysia

Perspectives of Key Stakeholders on Ecotourism Sustainability and Stakeholder Management: A Case Study of Penang Hill

Penang Hill, one of Malaysia's most well-known natural and cultural tourist sites, is a popular destination for both domestic and foreign visitors. The study's objective was to explore the perspectives of key stakeholders regarding ecotourism sustainability and stakeholder management. In-depth semi-structured interviews were conducted with three key stakeholders, and content analysis was done to explore the key findings. It was observed that PHC engages stakeholders through meetings, workshops, and seminars and tries to understand their interests for better management. Keen interests of stakeholders were observed towards activities that generate monetary rewards. It was also noted that all stakeholders showed great interest in the environmental conservation of the destination. The study concludes by stating that even though Penang Hill management is on the right path and trying hard to achieve ecotourism sustainability, stakeholders still need more support from the management authority to work towards the destination's sustainability, especially in this Covid-19 pandemic. The findings have ramifications for stakeholder management to implement long-term ecotourism in the destination.

Dr. Ahmad Salman
Sustainable Business Research Cluster,
School of Hospitality and Service Management / Sunway Business School, Sunway University
Email: salman@sunway.edu.my

Professor Sr. Dr. Mastura Jaafar*
Faculty of Housing, Building & Planning,
Universiti Sains Malaysia
Email: masturaj@usm.my

Dr. Diana Mohammad
Faculty of Housing, Building & Planning,
Universiti Sains Malaysia
Email: diana_mohamad@usm.my

Professor Sr. Dr. Mastura is currently attached to the Quantity Surveying program at the School of Housing, Building, and Planning, Universiti Sains Malaysia. She has numerous years of experience in the construction industry dealing with project estimation and costing, finance and project management, development proposals, and project evaluation. Her areas of research, publication, and supervision interests include strategic management in the construction, housing, and tourism industries, entrepreneurship, project management, and procurement management. Her scholarly contributions include innumerable publications in books, international journals, and international conference papers. She has taught strategic management courses in construction, housing and tourism, entrepreneurship, and procurement management at undergraduate and postgraduate levels. She is also currently supervising numerous postgraduate research students at the Masters and Ph.D. level. She was the recipient of the Emerald Literati Network 'Highly Commended Award' in 2007 and 2015. Her publications have been featured in Tourism Management; International Journal of Hospitality Management; Habitat International; Journal of Civil Engineering and Management; International Journal of Project Management; Journal of Project Management (JoPM); Engineering, Construction, and Architectural Management (ECAM) and Project Management Journal, to name a few. Currently, she serves as an Editor-in-Chief for the Journal of Construction in Developing Countries, besides being on the editorial board of several international and national journals.

Dr. Ahmad Salman is a leading researcher in tourism, with a particular focus on sustainable tourism and ecotourism. With extensive experience in conducting research, Dr. Salman has made significant contributions to the field through his work in ecotourism and stakeholder management. Dr. Salman's research has been widely recognised and published in numerous reputable journals. He is also a co-author of several journal articles, demonstrating his commitment to advancing the field through collaborative efforts.

Dr. Diana Mohamad has numerous years of experience in the tourism and planning field. She teaches tourism at University Sains Malaysia, and her main research interest is sustainable tourism development. She has well-known research publications in many international journals and conferences. She is highly engaged and active in the field of tourism and planning.

Introduction

During the 1980s, ecotourism emerged as a subset of sustainable tourism with the belief that traditional mass tourism was damaging to the natural environment of the destinations (Mondino & Beery, 2018). This alternative tourism was expected to increase destinations' economic and socio-cultural benefits and protect the environment. Ecotourism quickly gained appeal to advance the combined goals of conservation and sustainable development (Jamaliah & Powell, 2018). Even though researchers have been trying to obtain ecotourism sustainability, the implementation of ecotourism and its long-term sustainable development in the destination is not as simple as it looks. It comprises a diverse range of stakeholders with disparate interests and levels of influence.

Literature indicates several unsuccessful ecotourism initiatives worldwide due to the predominance of competition over control and rivalry over resources among the destination's stakeholders (Kline & Slocum, 2015; Towner, 2018; Dangi & Gribb, 2018). Understanding stakeholders' perspectives is vital for implementing sustainable ecotourism in the destination, but it is affected by many factors such as power, support, cultural issues, awareness, and economic interests (Palmer & Chuamuangphan, 2018; Towner, 2018; Salman et al., 2021b). For stakeholders to unite towards the same objective, their perspectives must be recognised. It will also effectively guide them toward managing and prioritising their roles (Carius and Job, 2019; Salman et al., 2021a). Recognising and regulating stakeholders based on their interests is critical to ecotourism's long-term viability. All stakeholders have a role, interest, and impact on ecotourism locations. The creation and administration of sustainable ecotourism destinations will not operate successfully unless each stakeholder plays an active part and is interested in achieving sustainable ecotourism.

Past studies have proven that achieving sustainability in tourism without understanding and management of multiple stakeholders' results generates a negative impact on the destination (Chen et al., 2020; Poudel, S., Nyaupane, G. P., & Budruk, M., 2016; Salman, Jaafar & Diana, 2021b). Stakeholder management systematically identifies, analyzes, and plans actions to communicate with and influence stakeholders (PMI, 2010). Managing stakeholders for sustainable ecotourism is essential because they are crucial in developing long-term ecotourism. Understanding stakeholders' interests, influence, and management strategies are viewed as a means to generate information regarding stakeholders. It helps to better understand their issues, objectives, and effects on decision-making processes (Waligo, Clarke & Hawkins, 2014).

This study is focused on Penang Hill, one of the latest inductees to the Man and Biosphere (MAB) network. Penang Hill was built in 1800 and is a prime tourist spot worldwide. It is considered one of Malaysia's oldest hill resorts (Salman et al., 2021b). The Malaysian government has designated Penang Hill as the most promising ecotourism destination. Penang Hill is a must-see for anybody visiting Penang Island. Tourists could observe spectacular natural, historical, and cultural sights on Penang Hill. Penang Hill is also deemed scientifically significant due to its tropical rainforest, the finding of numerous original specimens of Malaysian flora and wildlife, and historic bungalows from the colonial era. In addition, Penang Hill is known for its biodiversity and Habitat. Penang Hill has enormous rainforests and is a popular tourist destination, making it an ideal ecotourism location.

Even though past research on Penang Hill, such as Jaafar et al. (2021) and Connolly (2019), have tried to explore the community and culture from Penang and Penang Hill perspective; however, multiple stakeholders' management, engagements and their perceptions about engaging in a biosphere reserve such as Penang Hill have not yet been explored. The authors mentioned

above also point toward including multiple stakeholders to better understand their perspectives, indicating a gap to be filled. Furthermore, stakeholders of Penang Hill, in the past, have argued related to the management of the destination (Connolly, 2019). Concerning Penang Hill stakeholder management and their perceptions, scholarly literature is scarce. To date, and with the best knowledge of the researcher, there are limited studies present regarding the exploration of the management of Penang Hill, indicating a scarcity of research. Additionally, studies conducted by Salman et al. (2021b), Connolly (2019), and Chow (2018) indicated stakeholder management problems, such as their engagement and inclusion in planning and decision-making in Penang Hill.

Therefore, considering the historical significance of Penang Hill as a tourist destination, exploring the management of primary stakeholders and understanding their perspectives can pave the way for achieving sustainable ecotourism (Lowman et al., 2019). Thus, to fill this research gap, this study aims to answer one central question: How do key stakeholders perceive variables related to stakeholder management and ecotourism sustainability for Penang Hill.? This is also one of the study's key contributions, which will guide the policymakers and the management authority for the betterment of the destination and adequate guidance of the multiple stakeholders. Therefore, the sole objective of this study was to take up this challenge by examining multiple key stakeholders' perspectives related to sustainable ecotourism and stakeholder management of Penang Hill.

Literature Review

Ecotourism is a subsector of sustainable tourism (Ogata, 2014; Salman, Jafaar & Diana, 2020). The International Ecotourism Society (TIES, 2015) defines ecotourism as "responsible travel to natural areas that conserves the environment sustains the well-being of the local people, and involves interpretation and education". Ecotourism is a form of tourism that involves visiting

natural places to gain insight into the natural area or take out environmental activities, provide a natural experience, and help enable the economic and social progress of the community. It also seeks to study the region's natural environment, vegetation, wildlife, landscapes, and cultural heritage (Sarhan et al., 2016).

Mass tourism is being substituted with ecotourism because ecotourism tries to reduce the adverse effects of tourism on the area, like cultural loss, damage to the environment, and social insecurity (Marzouki, Froger & Ballet, 2012; Salman et al., 2021c). In addition, the researchers discovered that ecotourism boosts the experiences of tourists and tourism destinations, supports local culture, and increases involvement in the community (Anup et al. 2015). However, the complexity in the ecotourism sector because of the presence of several players and their challenging interests is a problem for its efficient growth and administration (Su, Wall & Ma, 2014).

Ecotourism is regarded as sustainable tourism mainly focused on protecting nature (Fennell, 2014). The image of ecotourism as an advocate of environmental education is fundamental to its appeal and experience. Numerous sources define ecotourism differently, resulting in a wide range of various definitions (Chiutsi et al., 2011; Coria & Calfucura, 2012). Even though ecotourism has various definitions, the International Ecotourism Society (2015) definition is one of the most detailed definitions stating ecotourism is responsible travel to natural regions to protect the environment, supporting the local population's well-being, and educating tourists. The several definitions of ecotourism share the common traits of focusing on nature, preservation, learning, and economic growth (Salman et al., 2022). Moreover, ecotourism also contributes positively to the sustainability of eco attractions globally (Abdullah et al., 2018). Tourists who prefer ecotourism seek tranquillity in pristine natural places. Therefore, ecotourism

is now at the forefront of several developing countries economic development agendas and environmental planning strategies (Pasape et al., 2015; Wondirad et al., 2020; Salman et al., 2022). As a result, several developing countries, especially in Asia, perceive ecotourism as a model for achieving sustainability in the area because of its varied benefits (Honey, 2008; Shoo & Songorwa, 2013; Lee & Jan 2018).

Similar to other countries in Asia, such as China, Thailand, and Indonesia; Malaysia is also using the tourism industry as a catalyst to boost its economic growth (Mosbah, 2014). Malaysia puts a heavy focus on the tourism industry, and now, Malaysia has become one of the most famous tourist destinations globally (Mosbah, 2014). Malaysia is focusing on a greener mode of sustainable tourism, such as ecotourism. Malaysia started to show a growing interest in ecotourism during the early 20th century, which can be seen through the studies conducted by Shuib and Abidin (2002) and Hazebroek and Morshidi (2002) on Pahang National Park and Mulu National Park in Malaysia. These studies highlighted that achieving sustainability could be challenging. Although Malaysia's economy is improving because of tourism, there is still a need to protect the area's environment and biodiversity, especially in biosphere reserves. The undesirable effects on the environment, culture, biodiversity, and people living in the area cannot be ignored (Zolfani et al., 2015; Anup et al., 2015). Additionally, high visitation to Malaysia's protected areas demonstrates the current high demand for nature-based tourism and the resulting requirement for facilities, infrastructure, and adequate management to meet this need (Thompson et al., 2018).

Furthermore, ecotourism can be characterised as hard and soft ecotourism. Soft ecotourism is only in a tiny portion of the world's public and private protected areas. However, hard ecotourism is dispersed within and between protected areas (Weaver, 2002). Protecting the ecological or societal integrity of protected areas is the primary challenge for land managers. There are currently

no guidelines for what constitutes a "sustainable" practice. "Sustainability" is a crucial criterion for any ecotourism activity. Additionally, ecotourism has a constructive impact on the environment, economy, and culture of the region in which it occurs. Any unpleasant change to the destination can result in changes and disruptions to the natural environment's dynamic features (Abdullah et al., 2018). When implemented responsibly, ecotourism activities can positively affect the destination's atmosphere (Buckley 2009). Ecotourism has several great benefits for the destination, including natural resource conservation, environmental protection, cultural preservation, and economic development (Ashok et al., 2017). However, if poorly managed, it can have negative consequences such as resource misuse, a surplus of tourists, habitat degradation, biodiversity loss, and exceeding the destination's capacity (Romadhon et al., 2014).

Since ecotourism destinations encompass the involvement and participation of multiple stakeholders, such as government agencies, residents, businesses, and enterprises, it is vital to understand the perspectives of these multiple stakeholders. Participation of stakeholders in the destination is vital for achieving and implementing long-term ecotourism sustainability (Ding & Cao, 2019). Exploring and achieving an equilibrium of interests among diverse stakeholders present in the destination is a prerequisite for ecotourism development (Ding and Cao, 2019; Salman et al., 2020). The integration of interests and views of key stakeholders in ecotourism development will lead to the destination's sustainable growth (Byrd, 2007). It is critical to involve key stakeholders in developing and administrating ecotourism to evade the adverse effects of tourism destinations and maximise the advantages of ecotourism (Abdullah et al., 2018).

Stakeholder theory plays a vital part in stakeholder management. Diamantis (2018) also noted that stakeholder theory significantly contributes to ecotourism development and has been an excellent tool for identifying stakeholders involved in planning and managing the destination. The

importance of stakeholder theory in tourism arises from the fact that the effective execution and planning of any project are contingent on the participation of numerous stakeholders (Lalicic, 2018). Therefore, stakeholder theory usage in tourism can aid in the development of new strategies that promote sustainable tourism development through diverse engagement practices such as stakeholder involvement in decision-making, stakeholder involvement in management, and inclusion of international and local communities in order to provide economic benefits to the area's residents (Ellis and Sheridan 2014).

Over the past three decades, literature has emphasised the importance of stakeholder management (Sperry & Jetter, 2019). Effective stakeholder management is a critical factor that impacts project performance (Nguyen & Mohamed, 2018) and is essential for achieving project success (Francisco de Oliveira & Rabechini, 2019). Assudani & Kloppenborg (2010) pointed out that the activities involved in stakeholder management facilitate and act as a key to project success. Karlsen (2016) established a link between stakeholder management and project success. Proper stakeholder management enables an organisation to achieve its strategic objectives through stakeholder support and an understanding of the external environment (Pedrini & Ferri, 2019). Manowong and Ogunlanas (2010) acknowledged that when stakeholder management is not done, perceptions of it become negative, chances of achieving goals are reduced, and any other opportunities of interacting with stakeholders for the benefit of the business are greatly affected. Exploring stakeholders' perceptions helps to identify their interests and thoughts according to the project. Freeman (2010) advocated for including all stakeholders' interests in the project to make it successful. This is to ensure positive relations are maintained among all stakeholders and thus ensure smooth continuity of the work or success of the project.

Stakeholder management considers how stakeholders impact the project and how stakeholders can influence other stakeholders in a project (Francisco de Oliveira & Rabechini, 2019). Effective stakeholder management can help develop strategies and techniques to help deal with the issues arising from different stakeholder perspectives in a project (Francisco de Oliveira & Rabechini, 2019). The primary objective of stakeholder management is to ensure that the project is executed efficiently and is more likely to succeed when stakeholders are aligned with and comprehend the strategies and outcomes of the project (Sperry & Jetter, 2019).

Whether the project is related to education, commerce, tourism, construction, or any other field, it is vital to understand stakeholders and do stakeholder management to make the project successful (Project Management Institute, 2017; Peric et al., 2014; Rajablu, Marthandan, & Yusoff, 2014). Therefore, project Stakeholder Management has been introduced as the tenth (10th) Knowledge Area of PMBOK® Guide, 5th Edition, published in 2013. Stakeholder management is the practice of creating suitable management methods to successfully involve stakeholders across the project based on their needs, preferences, and potential effect (influence) on the project's success. The primary advantage of this method is that it gives a clear, practical plan for interacting with project stakeholders to promote project objectives (PMBOK 5th Edition).

The relevance of tourism stakeholder management is based on the notion that the efficient execution and planning of every project relies on the input of several parties concerned, such as organisations, associations, and persons impacted by the project or able to influence the project (Komppula, 2016; Lalicic, 2018). Stakeholder management gives the means to create destinations to respond to the needs of its stakeholders. A proper comprehension of stakeholders will improve the administration of the destination and contribute to the economic and social stability of the destination. Primary stakeholders, such as the local community, businesses, and management

authorities, play a key role in implementing long-term sustainability in the area. Management of these stakeholder groups and their interests can occur at national, regional, and local levels and is mainly orchestrated by various organisations (Nicolaides, 2015). The inaccessibility of many stakeholders in the tourism system creates working problems and appears to be a significant factor in developing collaboration and management strategies (Van Cuong et al., 2017). Stakeholder management is an iterative process that manages stakeholders through a deliberate plan of action and strategic planning for the project's life (Project Management Institute, 2013.).

Studies such as Gunn (2002) and Mason (2020) noted that the effectiveness of stakeholder engagement, a vital component of stakeholder management, is contingent upon stakeholders' interests, perspectives, and values being reflected in decision-making. Therefore, a special emphasis should be made on stakeholder management in tourism planning. Stakeholders have varying objectives when it comes to resource development and conservation. While it is uncertain whether these expectations are driven by values or satisfaction, it is essential to devise and implement strategies for managing key stakeholders that contribute to the advancement of ecotourism. Neglecting the concerns of stakeholders can result in long-term negative impacts on local tourism, the community, and the natural environment. Therefore, it is crucial to comprehend stakeholders' perspectives towards their management and ecotourism development.

Methodology

A qualitative exploratory study was conducted to gain insight into the perspectives of key stakeholders regarding stakeholder management and long-term ecotourism sustainability. The qualitative method has deep philosophical foundations and is usually implemented through interviews (Creswell & Creswell, 2017) and also because it uncovers key perspectives (Salman et al., 2021b). The significance of this type of study is that it brings out the details and focuses on the

participants' facts and experiences. Semi-structured interviews were undertaken with three key stakeholder groups: the management authority, the business community (The Habitat Penang Hill), and the local community leader of Penang Hill. This is also in line with the studies conducted by Blomgren and Ljungström (2018), Kruijf (2019), Rosko (2015), and Kalaitsidis (2021), where the researchers noted that three interviews were enough to generate solid information and it was possible analyse each recording thoroughly to obtain as much as information as possible. Therefore, three stakeholders were selected for the interviews. One primary reason for selecting these stakeholders was because they were residing and working on top of the Hill. They are involved in all the activities taking place on the Hill, and they possess all the relevant information related to the Hill. Purposive sampling was employed to select key informants for the study. Respondents were chosen based on their expertise and involvement with Penang Hill. The qualitative data was examined using the content analysis technique, specifically manifest analysis, in which the researcher "explains what the informants say, keeps very close to the text, uses the actual words, and describes the visible and obvious in the text." (Bengtsson, 2016, p.3). Experts in the subject matter and the study's principal investigator formulated and validated interview questions.

Research Settings

Penang Hill was recently designated as the second Biosphere Reserve in Malaysia by UNESCO in 2021 (Jaafar et al., 2021). Penang Hill is one of Southeast Asia's oldest British hill stations; most bungalows on the Hill are over a century old, with the oldest building dating back to the 1700s. Penang Hill has a longstanding, illustrious history involving naturalistic investigations. Botanists from around the world collected plant specimens on Penang Hill and sent them back to their home countries as living collections since the Hill is densely forested with

indigenous and endangered species (Tree Foundation, 2019). Despite being a famous tourist spot, it remains modestly developed and has preserved its uniqueness. Historical records show that Penang Hill has been the site of numerous naturalistic investigations. Native and endangered species inhabit the Hill's lush vegetation (Tree Foundation, 2019). Penang Hill is a hotspot for both local and international tourists. Because of important natural habitats with high species richness and diversity, Penang Hill was proposed to become a biosphere reserve. Based on biodiversity data, 2456 species of plants from 206 families are found here. Around 20 are on the IUCN Red List, including four listed as Critically Endangered (The Habitat Foundation 2018).

Research Participants

The primary reason for conducting the interviews with these three key stakeholders was that they had all been connected with Penang Hill for over a decade and had a detailed awareness of the situation. Furthermore, they were also involved with the day-to-day activities occurring in Penang Hill. Another reason was that the Penang Hill Corporation is the guardian of Penang Hill and is responsible for preserving the destination's natural ecosystems and cultural heritage. The Penang State Legislative Assembly established the "Penang Hill Corporation" in 2009 through an enactment. It was constructed with the primary objective of administering the funicular system and developing Penang Hill. As custodian of Penang Hill, Penang Hill Corporation is responsible for conserving the natural environment and preserving the Penang Hill legacy. Habitat Penang Hill is a private organisation that delivers authentic, diversified, and educational programming on the rainforest, wildlife, and environment. Millions of dollars were invested in this project, which also aided in creating jobs for the community. The latest project initiated by The Habitat is 230m Langur way canopy walk. Lastly, Penang Hill's community leader has decades of experience in solving Penang Hill's challenges. He is the representative of Penang Hill residents. The community

leader is also running the Resident's Association. The Residents Association has been in charge of all community issues on Penang Hill since the creation of the Penang Hill Corporation. For confidentiality, their names and establishments were concealed. The interviewees' designation indicates that those engaged were considered the authoritative officers and had trustworthy information about Penang Hill and ecotourism in Penang Hill.

Data Collection

Between March and July 2020, the above-mentioned three key stakeholders of Penang Hill were interviewed. Interviews lasted between 60 and 90 minutes. All interviews were recorded and transcribed. The sections in the interview that were unclear were referred back to the participants for clarification, which is also aligned with the study conducted by Saldaña (2021) to clarify and minimise information misrepresentation. This data analysis aimed to understand the perceptions of several stakeholders for the richness of the data (Patton 2014, p.242) that can lead the management authority to manage their interests and perceptions better. The participants were also given an opportunity to broaden their dialogue and provide information that they thought was useful for the destination.

Analysis and Findings

This section presents the data analysis and findings of the qualitative interviews to explore how key stakeholders' perceptions related to ecotourism sustainability and stakeholder management. A content analysis technique was applied in this study. This allowed the researcher to examine the perceptions, behaviours, and trends (Creswell & Creswell, 2018). This study guided the researcher in understanding their perception of the management and ecotourism sustainability with context to Penang Hill. The interviews were recorded and transcribed. Note: In the analysis below, the respondents are referred by the stakeholder groups they represent.

Sustainable Ecotourism

Questions were posed to the stakeholders to elicit their perceptions of sustainable ecotourism. All stakeholders reported that they are making efforts towards achieving sustainability in the destination but acknowledged that much work remains to be done. When asked how they perceive the achievement of sustainability in the destination, the local community representative noted

"I think its going in the right direction and everyone is working together. We still have to go some further extent to achieve sustainability."

The business community representative also represented its concerns about the sustainability of the destination and noted

"I think that we, as with most everything, still have a lot of work to do. I think we have a lot s of things to do still, I think."

The local community is continually being trained and informed about the significance and advantages of ecotourism in Penang Hill. In the interview, the local community representative mentioned awareness and empowerment by stating:

"Local community is about 90% aware of ecotourism and sustainability."

The management authority is trying hard to attain long-term sustainability in the Hill and is also concerned about it. According to the management authority, they believe that the Hill needs to be protected and preserved carefully. They want to implement new projects, but they study the effects first. The respondent PHC representative noted

"This includes the projects on hill maintenance, education, preserving and conserving the nature of Penang Hill, infrastructure and tourism development."

The findings of the interviews show that the Penang Hill Corporation is trying hard to understand the perspectives of the key stakeholders. The key stakeholders, such as the business community and the local community residing and working on the Hill, acknowledge that the Penang Hill Corporation is trying hard, but still, some improvements are required. Furthermore, the local and business communities identified their interests in generating activities that can give them some monetary support. One of the main advantages of implementing sustainable ecotourism in the destination is that it brings monetary benefits to the residents of the destination. This is also in line with studies conducted by Pasape et al. (2015) and Rivera & Gutierrez (2019), where the researchers indicated that wealth has to be distributed in the area for ecotourism to be implemented successfully. Environmental interests were being tackled by collaborating with all key stakeholders. All stakeholders want to conserve the environment and protect the culture. This is also in line with the studies conducted by Acquah (2013) and Vishwanatha and Chandrashekara (2014), where they note that ecotourism positively impacts the environment and the culture of the destination. Penang Hill Corporation is making stakeholders aware and empowering them with training, but the central control lies with Penang Hill. This is similar to the study conducted by Pasape et al. (2016), where the researchers highlighted this type of technique as a hand-holding technique. The management authority of the destination guides, empowers, and monitors the stakeholders for better management.

Additionally, it was noted that both the business and local communities require support from the management authority or government to deal with the impacts of the Covid-19 pandemic. Covid-19 has impacted not only Penang Hill but all major tourist destinations. It has halted tourist

destinations and resulted in the shutting of vibrant places like Penang Hill. It has an economic and psychological impact on the people residing in the destination (Salman et al., 2021a). The government has to support the key stakeholders economically and psychologically to ensure the ecotourism implementation process in the destination remains smooth, and the stakeholders cause no disturbance. Providing such support would aid in fostering positive relationships among the key stakeholders and contribute to the destination's sustainability. The outcome will help to understand the main perspectives of key stakeholders, which is vital for implementing ecotourism in the destination.

Sustainable environment

The findings of this study also highlight that environmental conservation and protection are a primary concern among stakeholders residing in ecotourism destinations. The three stakeholders engaged in this study emphasised the importance of environmental protection and highlighted that no activities that may cause harm or danger to the Penang Hill environment are permitted. Interviews with Penang Hill's key stakeholders showed that although Penang Hill has significantly improved under the Penang Hill Corporation administration, the key players still believe that environmental management must be managed more effectively.

The business community, the local community, and the management authority of Penang Hill are all very concerned about environmental protection. The business community representative notifies that environmental conversation is improving, but still, much work has to be done. He states

"I think we have a lot of things to do still. I think waste management is definitely something that we need to work on."

The management authority agrees with the above statement and notifies that waste management and clearing up the slots are major environmental issues the management faces. The management is worried about the visitors generating waste in the destination. The management authority representative further states

"The increase in the number of visitors will result into more rubbish in Penang Hill, which may require more work in upkeeping the cleanliness of the hill."

Moreover, the local community was also observed to be cautious about environmental issues in the destination. The environmental issue highlighted by the local community representative was related to garbage. He noted

"We are working on it together. Like the garbage things."

As expressed by the representative of the Penang Hill Corporation, the management authority is cognizant of environmental issues and recognises that there are several challenges to be addressed in the destination, including deforestation, farming clearance, and open burning. All key Stakeholders understood that environmental protection is the key to implementing sustainable ecotourism in the destination. Therefore, they all try to keep a good relationship with the natural environment and focus on ecotourism-based activities only.

Stakeholder Management

Stakeholder management is the key to implementing sustainable ecotourism. Questions were asked related to the perception of key stakeholders towards stakeholder management. Findings show that the respondents across the board were all aware of the importance of key stakeholder management. They understand that it will become challenging to manage the destination without involving key stakeholders. So, they try to engage and work with stakeholders

to improve the destination. When inquiring about the stakeholder management of Penang Hill stakeholders, the management authority respondent highlighted the importance of key stakeholders in ecotourism implementation by stating that:

"Each (stakeholder) of them has a different and important role to play. A few of the examples of stakeholders engaged are board members of PHC and Penang Hill Residents Association."

Penang Hill Corporation tries to include all key stakeholders to ensure everyone contributes to the destination's well-being. They try to empower stakeholders of the destination, which can be observed from the statement of the PHC representative when he stated:

"Community stewardship is being implemented via various projects that have been and to be carried out by PHC in collaboration with other state agencies and private partners."

This study also investigated the management of stakeholders at Penang Hill. Upon inquiring, it was observed that Penang Hill Corporation's (PHC) approach toward stakeholder management is improving over time. The business community noted this by saying:

"In the last three years, PHC management has improved and changed. PHC approach is very people-centric. It's about the people who live here and make a life here and you know, and so he has been really instrumental in changing and in getting PHC focused, I believe on what we are what we believe are the right things to ecotourism and sustainability."

Because of this better stakeholder management, the business community representative further stated that they get involved whenever PHC wants them to. In addition, they try to coordinate with other stakeholders in their activities. The business community representative also noted:

"I have always pushed my team as well, as much as possible to communicate and to collaborate with our fellow stakeholders."

The local community resident also noted that Penang Hill Corporation is doing excellent stakeholder management. They are taking care of all stakeholders, especially the local community on the Hill. The local community representative said:

"They are playing very nice. So, whatever the needs for the people like, they want to clear road, clean road and clean water are being understood by PHC."

Findings also showed that Penang Hill Corporation is aware of the importance of stakeholder engagement, which plays a crucial part in stakeholder management. The management authority tries to work closely not only with the stakeholders that are present on the Hill but also with those key stakeholders that are not present on the Hill but play a vital role in Penang Hill's success. Penang Hill Management representative pointed out:

"The federal government and Penang government represented by the board members, government agencies, the community and NGOs all work together for Penang Hill and take part in the decision-making process."

When discussing stakeholders who are not present on the Hill but play a major role in the research activities of Penang Hill, a representative from PHC stated:

"PHC has been collaborating with researchers and educational institutions via various ways. Some of the examples are included but not limited to the collaboration with the Habitat and other agencies and partners including USM in producing the dossier for Penang hill Biosphere Reserve to be listed by UNESCO."

PHC understands that key stakeholders' engagement and collaboration are vital. They try to engage key stakeholders in different ways. On inquiring regarding the involvement and engagement of external key stakeholders, the management authority representative answered:

"PHC also works together with Centre for Global Sustainability Studies of University Sains Malaysia in the Trash Free Hill event, which aims at increasing public awareness towards the importance of keeping Penang Hill clean from rubbish and littering where trans retrieved by hikers will be collected and weighed by USM researchers and a report will be produced."

PHC representative also noted that the local community is continuously involved with the management of Penang Hill. Penang Hill Corporation (PHC) engages the community in meetings and involves them in the activities. Management authority representative noted:

"Time to time, maybe three times a year or something like that. We bring all the residents to have a meeting together with PHC. So whatever PHC intends to do, or whatever these people need, will be brought up to PHC. It will go accordingly, and these people will know what PHC intends to do and how they intend to do."

The business community and the local community respondents reveal that the Penang Hill Corporation management is focused on the engagement and collaboration of the stakeholders. The local community representative highlighted that the engagement of the entire community is commendable. Penang Hill Corporation (management authority) engages them with different tasks, as he noted

"So we try to grow plants, trees and do landscape improvements. They (PHC) is making sure that no one is left behind."

Similarly, the business community is also engaged. The business community representative noted that they love to be engaged in the destination, so whatever event comes up, they raise their hand. He also noted by saying:

"All main stakeholders are invited, and we help, support and participate in whatever way we can."

Moreover, it was also observed that Penang Hill Corporation is empowering the key stakeholders, especially the local community, by giving them proper training and generating awareness. The local community noted they were being trained, but the management authority represented this as one challenge in implementing ecotourism. When asked about the challenges faced in the implementation of ecotourism, he stated

"Educating the public awareness about the importance of conserving and preserving the hill."

Discussions

The current study has explored key stakeholders' perspectives concerning sustainable ecotourism and stakeholder management in Penang Hill. Identifying and understanding stakeholders' perspectives is vital for stakeholder management. From the perspective of Penang Hill, it was determined that the key stakeholders have a vested interest in developing economic activities, conserving the environment, and preserving cultural heritage. This is a positive sign for the Penang Hill management as previous studies such as Wondirad et al. (2020) and Dangi and Gribb (2018) as one of the key areas for implementing sustainability in the destination. Additionally, the stakeholders' statements highlighted the need for financial support to alleviate the impacts of the Covid-19 pandemic. This was also pointed out in a study by Salman et al.

(2021a), where the researchers emphasised the crucial role of financial support in mitigating the effects of pandemics such as Covid-19. All interviewees agreed that nature must be preserved and that an adequate waste management system is necessary. This aligns with the findings of a study conducted by Anup et al. (2015), which emphasised the importance of preservation and waste management in achieving sustainability. It was noticed in the interviews that all interested parties were aware that the conservation of the environment is one of the essential pillars of ecotourism. A study by Salman et al. (2021b) also highlights that conservation and waste management are the keys to success in an ecotourism destination. Therefore, they must safeguard the environment, so approval is required before any activity occurs at the destination. A major hindrance in achieving sustainability in a tourism destination is waste generation. The key stakeholders interviewed were keen to develop a permanent solution concerning this matter. Since the garbage trucks cannot access the Hills and collect garbage, they wanted to develop garbage disposal plants to control the waste generated in Penang Hill. Brokaj (2014) supports this notion when the author notes that a waste management plan has to be developed to achieve sustainability in the destination. UNESCO (2013) previously highlighted the issue of solid and liquid waste by tourism businesses and tourists activities. This issue was further expanded upon by Hakim and Soemarno (2017), who argued that waste from tourism activities threatens the biosphere and its sustainability. Therefore, PHC needs to consider the various concerns of the stakeholders in developing waste management plans.

Additionally, the stakeholders seek to conserve the area's biodiversity by conserving Penang Hill's natural ecosystem. Ecotourism tries to guarantee socio-cultural responsibility, eco-stability, and commercially successful tourism; however, it is challenging to achieve these instrumental goals. The approach calls for the continuous cooperation, support, and engagement of key players in the destinations. This approach can be an effective means of attracting hard

ecotourists. Singh et al. (2007) state that hard ecotourists usually strive for enhanced sustainability through various means, such as volunteer work and fund-raising to support environmental causes. Attracting hard ecotourists will help improve the destination's image as a robust ecotourism destination.

In order to effectively manage stakeholders, Penang Hill Corporation tries to maintain a healthy and robust relationship with the key stakeholders of the Hill. They try to give non-financial benefits such as logistic and organisation support where required. This was also confirmed in the interviews where respondents stated that they do not get monetary support from the Penang Hill Corporation but all the logistic support from PHC. However, financial support was also suggested as a means of support. This is also in line with the study conducted by Salman et al. (2021a), where they highlight that financial support is one of the ways to reduce the issues in a destination. Effective stakeholder management depends on factors such as a good relationship, personal management, engagement through different channels, and supporting them wherever required. In addition, strategic stakeholder management may assist the Penang Hill destination and provide a setting for PHC that helps the destination flourish. Understanding and managing the stakeholders in the destination would also assist policymakers in managing the destination for sustainable ecotourism.

Under the direction of Penang Hill Corporation, Penang Hill appears to be on the right course. There is great trust between the management and Penang Hill's main stakeholders, which is crucial to developing Penang Hill as an ecotourism site. This positive engagement extends to research institutions' involvement in conservation and ecotourism, mitigating sceptical attitudes towards ecotourism. Regarding empowerment, findings revealed that PHC put in enormous effort, especially for the local community residing on the Hill, by providing them with knowledge and

training. Stakeholders are informed adequately during training on which activities they should engage in and avoid. Their awareness then empowers them to act independently and per ecotourism guidelines. This empowerment is translated into their effort in administering workshops and training to residents and other stakeholders on the Hill to achieve destination sustainability. These activities also strengthen the community and participation of all stakeholders, developing trust and credibility among stakeholders. Research findings highlighted that Penang Hill Corporation holds all the power and ensures that the stakeholders know the importance of achieving sustainability in the destination. No activity is allowed at the destination without the permission of the Penang Hill Corporation. Networking with other stakeholders was encouraged by all stakeholders. All the interviewees agreed that Penang Hill is going in the right direction regarding sustainability; however, still, much work has to be done. A lack of trust can occur if primary stakeholders are not understood, leading to activities that hinder sustainability. Long-term sustainability in the destination is also not possible if stakeholders do not have active interests to be involved. Thus, PHC needs to consider the viewpoints of the primary stakeholders and ensure that stakeholder engagement and empowerment can lead to a better transition towards achieving sustainability. This consideration can include allowing stakeholders to decide, implement, and accept responsibility for their decisions and actions that can directly benefit the stakeholders. Therefore, the current study suggests that it is vital to understand the interests and influence of the stakeholders for their management, which eventually paves the way for ecotourism implementation. And lastly, especially in these difficult times of Covid-19, more support from the management authority for the key stakeholders is required. Monetary incentives in lieu of the expenses or loss of income because of the Covid-19 pandemic can also be beneficial in achieving substantial support for both the destination and the management.

Conclusion & Recommendations

The current study explores the perspectives of key stakeholders of Penang Hill regarding stakeholder management and sustainable ecotourism. Although Penang Hill Corporation is trying hard to improve the current condition of Penang Hill, still much work is required. Stakeholders face financial issues, and businesses are impacted because of Covid-19. Penang Hill Corporation, as the destination's custodian, has to develop new ways of positively engaging stakeholders. They have to include stakeholders in the decision-making, which will result in a better understanding of their perspectives. The corporation can involve the stakeholders in healthy conversations and devise a solution to the issues present on the Hill, such as waste, electricity, and logistics. Besides, it is also recommended to test the stakeholders' framework by including and understanding the key stakeholders' different interests and levels of influence. Also, more stakeholders can be involved in studies better to understand their interests and position in the destination. Additionally, the Penang Hill Corporation can pave the way for sustainable ecotourism by forming strategic partnerships with esteemed academic institutions. By collaborating with experts in the field, the PHC can gain valuable insight and feedback on effectively implementing sustainable tourism practices in the destination. This benefits the preservation of Penang Hill's natural and cultural heritage and positions the destination as a leader in sustainable tourism. Moreover, it is recommended that a certification program be developed for businesses and tourism providers in the destination. The corporation can incentivise and recognise those who go above and beyond to protect the destination's environment and culture by creating a certification program for businesses and other tourism providers that adhere to sustainable standards. This supports and promotes sustainable ecotourism and attracts responsible and environmentally conscious visitors. Penang Hill can survive and thrive as a sustainable ecotourism destination with these steps. Hence, future

research could delve deeper into understanding the specific sustainability concerns and challenges faced by different types of businesses operating in the Penang Hill destination, such as accommodations, tour operators, and restaurants. This could include assessing their current sustainable practices and identifying opportunities for improvement. Additionally, researchers could explore the attitudes and behaviors of tourists visiting Penang Hill concerning sustainable tourism, and how these could be influenced through targeted educational campaigns and initiatives. Furthermore, a study could be conducted to examine the effectiveness of the certification program for sustainable tourism in the Penang Hill destination and its impact on the attitudes and behaviors of both businesses and tourists.

Implications

The current research provides important theoretical implications. First, this research has contributed to the continuous debate on the main issues and gaps in ecotourism development. The research findings also support the idea that ecotourism helps in environmental protection and cultural rehabilitation and improves the lives of the local population. Second, the study shows that adequate stakeholder management and engagement by the destination's management authority may enhance stakeholder relations, recover the area's economic circumstances, widen market opportunities, and promote competitiveness, thereby enhancing destination benefits. Third, the study highlights the importance of involving stakeholders in decision-making processes and understanding their interests for effective stakeholder management.

Furthermore, the results have some practical implications as well. The research findings are valuable in enhancing stakeholder management techniques for destinations such as Penang Hill. As outlined in the literature, previous studies in Malaysia have explored stakeholders' importance in implementing ecotourism. However, these studies fail to explore diverse factors,

such as stakeholders and their management perspectives, especially in destinations like Penang Hill. This study has implications in pursuing sustainable ecotourism development where related policies related to destination planning and stakeholder management are involved. The study results give useful input for policy development, planning, management of destinations, collaboration, participation, and stakeholder guidance from a practitioner viewpoint. The study guides the development of adequate stakeholder understanding to facilitate ecotourism development, examines factors affecting participation and stakeholder cooperation, and develops effective management strategies to surmount challenges in implementing ecotourism at a destination. Lastly, the study can serve as a useful reference for other researchers interested in exploring sustainable ecotourism and stakeholder management in other destinations.

References

Abdullah, A. R., Weng, C. N., Afif, I., & Fatah, A. (2018). Ecotourism in Penang National Park: a multi-stakeholder perspective on environmental issues. *J Bus Soc Dev*, *6*(1), 70-83.

Acquah, E. (2013). *Human-wildlife interactions, nature-based tourism, and protected areas management: the case of Mole National Park and the adjacent communities in Ghana* (Doctoral dissertation).

Adongo, C. A., Taale, F., & Adam, I. (2018). Tourists' values and empathic attitude toward sustainable development in tourism. *Ecological Economics*, *150*(2018), 251–263.

Anup KC, Rijal, K., & Sapkota, R. P. (2015). Role of ecotourism in environmental conservation and socioeconomic development in Annapurna conservation area, Nepal. *International Journal of Sustainable Development & World Ecology*, *22*(3), 251-258.

Ashok, S., Tewari, H. R., Behera, M. D., & Majumdar, A. (2017). Development of ecotourism sustainability assessment framework employing Delphi, C&I and participatory methods: A case study of KBR, West Sikkim, India. *Tourism Management Perspectives*, *21*, 24-41.

Assudani, R., & Kloppenborg, T. J. (2010). Managing stakeholders for project management success: An emergent model of stakeholders. *Journal of General Management*, *36*(1), 67–80.

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, *2*, 8-14.

Blomgren, E., & Ljungström, S. (2018). Youth Tourism:–Impacts on places from a consumer perspective. *Linnaeus University*. https://www.diva-portal.org/smash/record.jsf?pid=diva2:1182217

Brokaj, R. (2014). Local Government`S Role in the Sustainable Tourism Development of a Destination. *European Scientific Journal*, *10*(31), 1857–7881. https://doi.org/10.19044/esj.2014.v10n31p%p

Buckley, R. (2004). Impacts positive and negative: links between ecotourism and environment. *Environmental impacts of ecotourism*, 5-14.

Byrd, E. T. (2007). Stakeholders in sustainable tourism development and their roles: applying stakeholder theory to sustainable tourism development. *Tourism review*.

Carius, F., & Job, H. (2019). Community involvement and tourism revenue sharing as contributing factors to the UN Sustainable Development Goals in Jozani–Chwaka Bay National Park and Biosphere Reserve, Zanzibar. *Journal of Sustainable Tourism*, *27*(6), 826-846.

Chen, F., Lai, M., & Huang, H. (2020). Can marine park become an ecotourism destination? Evidence from stakeholders' perceptions of the suitability. *Ocean & Coastal Management*, *196*, 105307.

Chow, T. S. (2018). *Penang Hill hotel projects to go ahead*. The Star. https://www.thestar.com.my/news/nation/2018/11/21/penang-hill-hotel-projects-to-go-ahead-phc-two-lodging-facilities-to-be-built-on-dilapidated-buildin

Chiutsi, S., Karigambe, P., & Mudzengi, B. K. (2011). The theory and practice of ecotourism in Southern Africa. *Journal of Hospitality Management and Tourism*, *2*(2), 14–21.

Connolly, C. (2019). Urban political ecologies of heritage: Integrating cultural and natural landscapes in Penang, Malaysia. *Transactions of the Institute of British Geographers*, *45*(1), 168–180. https://doi.org/10.1111/tran.12335

Coria, J., & Calfucura, E. (2012). Ecotourism and the development of indigenous communities : The good , the bad , and the ugly. *Ecological Economics*, *73*, 47–55

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Creswell, J. W., & Creswell, D. J. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). London, United Kingdom: Sage.

Dangi, T. B., & Gribb, W. J. (2018). Sustainable ecotourism management and visitor experiences: Managing conflicting perspectives in Rocky Mountain National Park, USA. *Journal of Ecotourism*, *17*(3), 338-358.

Diamantis, D. (2018). Stakeholder ecotourism management: exchanges, coordination's and adaptations.

Ding, Z. F., & Cao, B. (2019). Exploring the factors in visitors'behavioral intentions–mediation effects on perceived environmental involvement and ecotourism support. *Applied Ecology and Environmental Research*, *17*(1), 1083-1092.

Dodds, R. (2007). Sustainable tourism and policy implementation: Lessons from the case of Calvia, Spain. *Current Issues in Tourism*, *10*(4), 296-322.

Ellis, S., & Sheridan, L. (2014). A critical reflection on the role of stakeholders in sustainable tourism development in least-developed countries. *Tourism Planning & Development*, *11*(4), 467-471.

Fennell, D. A. (2014). *Ecotourism*. Routledge.

Francisco de Oliveira, G., & Rabechini, R. (2019). Stakeholder management influence on trust in a project: A quantitative study. *International Journal of Project Management*, *37*(1), 131–144.

Freeman, R. (2010). *Strategic management: A stakeholder approach*.

Getz, D., & Timur, S. (2012). 12 Stakeholder involvement in sustainable tourism: balancing the voices. *Global tourism*, *230*, 230-247.

Gunn, C. A., & Var, T. (2002). *Tourism planning: Basics, concepts, cases*. Psychology Press.

Hardy, A., & Pearson, L. J. (2016). Determining sustainable tourism in regions. *Sustainability (Switzerland)*, *8*(7), 1–18

Hakim, L., & Soemarno, M. (2017). Biodiversity conservation, community development and geotourism development in Bromo-Tengger-Semeru-Arjuno biosphere reserve, East Java. *Geojournal of Tourism and Geosites*, *20*(2), 220–230.

Hazebroek, H. P., & bin A Morshidi, A. B. (2002). *A Guide to Gunung Mulu National Park*. https://agris.fao.org/agris-search/search.do?recordID=US201300091382

Honey, M. (2008). *Who Owns Paradise?* (M. Honey (ed.); 2nd ed.). Island Press.

Jaafar, M., Ebekozien, A., & Mohamad, D. (2021). Community participation in environmental sustainability: a case study of proposed Penang Hill Biosphere Reserve, Malaysia. *Journal of Facilities Management*, *19*(4), 527–549. https://doi.org/10.1108/JFM-03-2021-0033

Jamaliah, M. M., & Powell, R. B. (2018). Ecotourism resilience to climate change in Dana Biosphere Reserve, Jordan. *Journal of Sustainable Tourism*, *26*(4), 519-536.

Kalaitsidis, A. (2021). *Affects and emotions in ghost tourism–A content analysis on tourist experiences at the LaLaurie Mansion*. https://lauda.ulapland.fi/handle/10024/64847

Karlsen, J. T. (2016). *Project Stakeholder Management*. *December 2002*.

Kennedy, V., & Augustyn, M. M. (2014). Stakeholder power and engagement in an English seaside context: Implications for destination leadership. *Tourism Review*.

Kline, C. S., & Slocum, S. L. (2015). Neoliberalism in ecotourism? The new development paradigm of multinational projects in Africa. *Journal of Ecotourism*, *14*(2-3), 99-112.

Komppula, R. (2016). The role of different stakeholders in destination development. *Tourism Review*, *7*(1), 67–76. https://doi.org/10.1108/TR-06-2015-0030

Kruijf, T. DE. (2019). Authenticity Within Natural Area Tourism. In *edepot.wur.nl*. https://edepot.wur.nl/478870

Lalicic, L. (2018). Open innovation platforms in tourism: how do stakeholders engage and reach consensus? *International Journal of Contemporary Hospitality Management*.

Lee, T. H., & Jan, F. H. (2018). Ecotourism Behavior of Nature-Based Tourists: An Integrative Framework. *Journal of Travel Research*, *57*(6), 792–810. https://doi.org/10.1177/0047287517717350

Lowman, M., Ruppert, N., & Mohd Nor, S. A. (2019). Further advancing the expert bioblitz for the rainforest conservation toolkit. *Conservation Science and Practice*, *1*(1), e2. https://doi.org/10.1111/csp2.2

Mason, P. (2020). *Tourism impacts, planning and management*. Routledge.

Mammadova, A. (2017). Biosphere reserve as learning sites for biocultural conservation education; Case of Mount Hakusan Biosphere Reserve in Japan. *European Journal of Sustainable Development*, *6*(4), 487-487

Manowong, E., & Ogunlanas, S. (2010). Strategies and Tactics for Managing Construction Stakeholders. In *Construction Stakeholder Management* (pp. 121–137). Wiley-Blackwell.

Marzouki, M., Froger, G., & Ballet, J. (2012). Ecotourism versus mass tourism. A comparison of environmental impacts based on ecological footprint analysis. *Sustainability*, *4*(1), 123-140

Mondino, E., & Beery, T. (2019). Ecotourism as a learning tool for sustainable development. The case of Monviso Transboundary Biosphere Reserve, Italy. *Journal of Ecotourism*, *18*(2), 107-121.

Mosbah, A. (2014). A review of tourism development in India. *International Multidisciplinary Original Article Research Journal*, *3*(11), PP. 1-13.

Mount Hakusan Biosphere Reserve in Japan. *European Journal of Sustainable Development*, *6*(4), 487-487.

Nguyen, T. B. T., Chau, N. T., & Vo, L. X. S. (2018). Applying network analysis in assessing stakeholders' collaboration for sustainable tourism development: A case study at Danang, Vietnam. *International Journal of Tourism Policy*, *8*(3), 244–270

Nicolaides, A. (2015). Tourism Stakeholder Theory in practice: instrumental business grounds, fundamental normative demands or a descriptive application?.

Ogato, G. S. (2014). Planning for sustainable tourism: Challenges and opportunities for ecotourism development in Addis Ababa, Ethiopia. *American journal of human ecology*, *3*(2), 20-26.

Palmer, N. J., & Chuamuangphan, N. (2018). Governance and local participation in ecotourism: community-level ecotourism stakeholders in Chiang Rai province, Thailand. *Journal of Ecotourism*, *17*(3), 320-337.

Pasape, L., Anderson, W., & Lindi, G. (2015). Good governance strategies for sustainable ecotourism in Tanzania. *Journal of Ecotourism*, *14*(2-3), 145-165.

Patton, M. Q. (2014). *Qualitative evaluation and research methods: Integrating theory and practice*. Sage Publications.

Pedrini, M., & Ferri, L. M. (2018). Stakeholder management: a systematic literature review. *Corporate Governance (Bingley)*, *17*(30).

Peric, M., Durkin, J., & Lamot, I. (2014). Importance of Stakeholder Management in Tourism Project : Case Study of the Istra. *Tourism and Hospitality Industry 2014, Congress Proceedings, Trends in Tourism and Hospitality Industry*, *25*(116), 273–286.

Project Management Institute. (2010). The Value of Project Management. Project Management Institute.

Project Management Insittute (PMI). (2013). PROJECT MANAGEMENT BODY OF KNOWLEDGE (PMBOK® GUIDE). In *Project Management Institute*.

Project Management Institute. (2017). Project Management Body of Knowledge: A Guide to the Project Management Body of Knowledge. In *Newtown Square, Pennsylvania: Project Management Institute.*

Poudel, S., Nyaupane, G. P., & Budruk, M. (2016). Stakeholders' perspectives of sustainable tourism development: A new approach to measuring outcomes. *Journal of Travel Research*, *55*(4), 465-480.

Pipinos, G., & Fokiali, P. (2009). An assessment of the attitudes of the inhabitants of Northern Karpathos, Greece: Towards a framework for ecotourism development in environmentally sensitive areas : Aramework in environmentally sensitive areas. *Environment, Development and Sustainability*, *11*(3), 655–675.

Prime Minister's Department (2001) Study on the development of hill stations.

Romadhon, A., Yulianda, F., Bengen, D., Adrianto, L., Romadhon, A., Yulianda, F., ... & Adrianto, L. (2014). Sustainable tourism based on carrying capacity and ecological footprint at Sapeken Archipelago, Indonesia. *International Journal of Ecosystem*, *4*(4), 190-196.

Riahi, Y. (2017). Project Stakeholders: Analysis and Management Processes. *International Journal of Project Management*.

Rajablu, M., Marthandan, G., & Yusoff, W. F. W. (2014). Managing for stakeholders: The role of stakeholder-based management in project success. *Asian Social Science*, *11*(3), 111–125.

Rivera, J. P. R., & Gutierrez, E. L. M. (2019). A framework toward sustainable ecotourism value chain in the Philippines. *Journal of Quality Assurance in Hospitality & Tourism*, *20*(2), 123-142.

Sarhan, A., Abdelgalil, R., & Radwan, Y. (2016). Ecotourism principles as a framework for culturally responsive community development. *WIT Transactions on Ecology and the Environment*, *201*, 15-25.

Saldana, J. (2015). *The coding manual for qualitative researchers* (3rd revised ed.). London, United Kingdom: Sage

Saldaña, J. (2021). *The coding manual for qualitative researchers*. sage.

Salman, A., Kamerkar, U., Jaafar, M., & Mohamad, D. (2021a). Empirical analysis of COVID-19 induced socio cognitive factors and its impact on residents of Penang Island. *International Journal of Tourism Cities*.

Salman, A., Jaafar, M., & Mohamad, D. (2020). Strengthening sustainability: a thematic synthesis of globally published ecotourism frameworks. *African Journal of Hospitality, Tourism and Leisure*, *9*(3), 246-258

Salman, A., Jaafar, M., & Mohamad, D. (2020). A comprehensive review of the role of ecotourism in sustainable tourism development. *e-Review of Tourism Research*, *18*(2), 215-233.

Salman, A., Jaafar, M., & Mohamad, D. (2021c). Understanding the Importance of Stakeholder Management in Achieving Sustainable Ecotourism. *Pertanika Journal of Social Sciences and Humanities, 29*, 731-753.

Salman, A., Jaafar, M., Mohamad, D., & Malik, S. (2021b). Ecotourism development in Penang Hill: a multi-stakeholder perspective towards achieving environmental sustainability. *Environmental Science and Pollution Research*, 1-14.

Salman, A., Jaafar, M., Mohamad, D., & Khoshkam, M. (2022). Understanding Multi-Stakeholder Complexity & Developing a Causal Recipe (fsQCA) for achieving Sustainable ecotourism. *Environment, Development and Sustainability*, 1-24.

Shoo, R. A., & Songorwa, A. N. (2013). Contribution of ecotourism to nature conservation and improvement of livelihoods around Amani nature reserve, Tanzania. *Journal of Ecotourism*, *12*(2), 75–89. https://doi.org/10.1080/14724049.2013.818679

Shuib, A., & Abidin, Z. (2002). Criteria and indicators of a sustainable development of ecotourism resources: An application of the Delphi technique. *Borneo Review*, *13*(1), 73–90.

Singh, T., Slotkin, M. H., & Vamosi, A. R. (2007). Attitude towards ecotourism and environmental advocacy: Profiling the dimensions of sustainability. *Journal of Vacation marketing*, *13*(2), 119-134.

Sperry, R. C., & Jetter, A. J. (2019). A Systems Approach to Project Stakeholder Management: Fuzzy Cognitive Map Modeling. *Project Management Journal*, *50*(6), 699–715

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., De Vries, W., De Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B., & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, *347*(6223).

Su, M. M., Wall, G., & Ma, Z. (2014). Assessing ecotourism from a multi-stakeholder perspective: Xingkai lake national nature reserve, China. *Environmental management*, *54*(5), 1190-1207.

The Habitat Foundation. (2018). *The proposed Penang Hill UNESCO Biosphere Reserve*. https://habitatfoundation.org.my/2018/10/06/the-penang-hill-biosphere-reserve/

Thompson, B. S., Gillen, J., & Friess, D. A. (2018). Challenging the principles of ecotourism: insights from entrepreneurs on environmental and economic sustainability in Langkawi, Malaysia. *Journal of Sustainable Tourism*, *26*(2), 257–276. https://doi.org/10.1080/09669582.2017.1343338

TIES (2015) What is ecotourism - The International Ecotourism Society. https://ecotourism.org/what-is-ecotourism/

Tiew, F., Holmes, K., & De Bussy, N. (2015). Tourism events and the nature of stakeholder power. *Event Management*, *19*(4), 525-541.

Towner, N. (2018). Surfing tourism and local stakeholder collaboration. *Journal of Ecotourism*, *17*(3), 268-286.

Tree Foundation. (2019). *Penang Hill - TREE Foundation*. https://treefoundation.org/malaysia/penang-hill/

UNESCO. (2013). Sustainable Tourism for Development Guidebook - Enhancing capacities for Sustainable Tourism for development in developing countries. In *Sustainable Tourism for Development Guidebook - Enhancing capacities for Sustainable Tourism for development in developing countries*. https://doi.org/10.18111/9789284415496

Van Cuong, C., Dart, P., & Hockings, M. (2017). Biosphere reserves: Attributes for success. *Journal of Environmental Management*, *188*, 9–17.

Vishwanatha, S., & Chandrashekara, B. (2014). An analysis of socio-cultural impacts of ecotourism in Kodagu District. *American journal of research communication*, *2*(7), 135-147.

Waligo, V. M., Clarke, J., & Hawkins, R. (2013). Implementing sustainable tourism: A multi-stakeholder involvement management framework. *Tourism management*, *36*, 342-353.

Waligo, V. M., Clarke, J., & Hawkins, R. (2014). The 'leadership–stakeholder involvement capacity'nexus in stakeholder management. *Journal of Business Research*, *67*(7), 1342-1352.

Weaver, D. B. (2002). Hard-core ecotourists in Lamington National park, Australia. *Journal of Ecotourism*, *1*(1), 19-35.

Wei, M., & Yang, R. (2013). A research on ecotourism development models based on the stakeholder theory. *Applied Mechanics and Materials*, *291–294*, 1447–1450.

Wondirad, A., Tolkach, D., & King, B. (2020). Stakeholder collaboration as a major factor for sustainable ecotourism development in developing countries. *Tourism Management*, *78*(October 2019), 104024. https://doi.org/10.1016/j.tourman.2019.104024

Zapata, M. J., & Hall, C. M. (2012). Public–private collaboration in the tourism sector: balancing legitimacy and effectiveness in local tourism partnerships. The Spanish case. *Journal of Policy Research in Tourism, Leisure and Events*, *4*(1), 61-83.

Zolfani, S. H., Sedaghat, M., Maknoon, R., & Zavadskas, E. K. (2015). Sustainable tourism: A comprehensive literature review on frameworks and applications. *Economic Research-Ekonomska Istrazivanja* , *28*(1), 1–30. https://doi.org/10.1080/1331677X.2014.995895