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A Case Study of Bateq Community Adapted to Communication Technology in Taman Negara

Maisarah Abd Hamid[1], Norazlina Rahmat[1*], Norzaidah Ngali[1], Mohd Hafiz Mohd Hanafiah[2]

[1] Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Terengganu, Terengganu,Malaysia
[2] Faculty of Hotel and Tourism Management, Universiti Teknologi MARA Cawangan Puncak Alam, Selangor, Malaysia

*Corresponding Author: noraz335@uitm.edu.my

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Abstract: *Bateq, the Aboriginal people living in Pahang National Park in Malaysia, are heavily involved in the tourism industry. Among the uniqueness of the Bateq communities are their unique lifestyle, culture, and traditions. However, digital technologies have proliferated among the younger generation, creating disadvantages in the Bateq Indigenous community's way of life. This exploratory study was conducted to explore the type of technology used by the Bateq people from the tourism stakeholders' perspectives. Four villages were visited for this purpose: Kuala Atok Village, Kuala Sg Tabong Village, Kuala Sungai Yong Village and Dedari Village. Observation and in-depth interviews were conducted with eleven Bateq people and three tourism stakeholders. Thematic analysis was used to analyse the data. The result indicates that the Bateq community has already adapted to modern technology. The young respondents agree that technology is important, and most have smartphones. They use their smartphone for social media and watch online videos as the internet connection is available in some areas of their village. Additionally, they used solar power for charging their phones and lighting purposes. However, the tourism stakeholders were against the technology adoption behaviour among the Bateq community. The tourism organisation prefers that the Bateq people continue their traditional lifestyle with minimal technology interaction because it is important for their culture and lifestyle sustainability, which retains the tourism stakeholders' business activities. Future studies should examine the preferences of technology adoption practices among the Bateq community and tourism stakeholders and how it would benefit the industry. Perhaps, they could adopt technology without affecting their way of living to ensure that future generations continue to practice and enjoy the uniqueness of Bateq ethnic culture and lifestyles.*

Keywords: Bateq people, digitalisation, cultural, lifestyle, sustainability

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1. Introduction

Sustainable development in years to come will capitalise greatly on digitalisation. Digitalisation is vital as it benefits society and the environment (Mondejar et al., 2021). It has no limitations and is flexible to everyone, including aboriginal people. Aboriginal people worldwide have faced severe discrimination regarding their basic rights and erosion of their

ancestral lands, languages, cultures, and forms of governance, as well as access to essential social services (Ashraf et al., 2015), including the rights to use the technology.

Aboriginal people are among the unique ethnicities in Malaysia. Taman Negara Pahang has two ethnicities of Orang Asli or Aboriginal people, namely Bateq and Semoq Beri. The Bateq community is under the subethnic of Negrito, with 1124 of them in Pahang (JAKOA, 2020). Orang Bateq is mainly found in northeast Pahang, northwest Terengganu, and south Kelantan. In Pahang, they are primarily concentrated in Kuala Tahan, particularly the National Park. Several Orang Bateq settlement areas of Kuala Tahan include Kampung Kuala Sat, Kuala Kemiang, and Kampung Dedari (Che Lah, 2014). Even though this community is small and not the largest in Pahang, some members are already directly and indirectly involved with ecotourism development at Taman Negara Pahang. Therefore, it is crucial to explore their connection with technology.

Studies related to technology among Aboriginal people are still limited. A study by Dyson & Brady (2013) highlights mobile technology adoption in the Cape York community. Key factors in Aboriginal people's decision to adopt mobile technology include cost management features (particularly the prepaid nature of the service and the acceptance of mobile phones as personal devices), the multimedia functionality of 3G phones, and their portability. The result also indicates that Indigenous people in remote areas have demonstrated their preference for mobile technology. This trend highlights the use of mobile technology among the Indigenous people, and it is worth exploring among the Aboriginal people in Malaysia. Therefore, this study aims to explore technology adoption among the Aboriginal people at Taman Negara Pahang.

An ICT ecosystem requires telecommunication and electricity. However, rural areas still have a limitation on these infrastructures (Izadyar et al., 2016). The study on electricity suggested using solar (Mechelif et al., 2012) and hybrid power (Izadyar et al., 2016) for electricity purposes. Additionally, diesel generator usage is practical in rural areas but has some limitations, including environmental impacts (Shin et al., 2015). Meanwhile, a study on the ICT ecosystem showed the need for mobile phones and network operators to increase access to communications in rural areas. The study on telecommunication tends to focus on ICT expenditure and communication patterns, including mobile phone usage, and it is related to network and battery charge (Rey – Moreno et al., 2016). Hence, this showed the components required for the ICT ecosystem in rural areas.

The involvement of technology among Aboriginal people may affect sustainability and tourism purposes. Today, ecotourism is one of the growing segments and more devoted to rural area development that seeks to provide residents jobs and aid in preserving communities' traditions. The relationship between Indigenous people and ecotourism is that when combined with modern science, Indigenous wisdom can optimize environmental, socio-cultural, and economic impacts (Pásková, 2017). A previous study has shown that Aboriginal people support ecotourism due to the motivation and perceived benefits they gain from the industry (Musadad et al., 2022). Additionally, tourism and technology are interrelated and required for the industry's competitive advantage. However, the effects of indigenous tourism and technology will give advantages and disadvantages to these communities and will affect their sustainability.

2. Methodology

This case study is conducted at Taman Negara Pahang. It is a preliminary analysis of Bateq communities' adoption of technology and sustainability. It was based on interviews, observations, and examining existing documentation. The fieldwork was conducted in July 2022 for five days.

This study employed qualitative research methods because they provide detailed descriptions and explanations and are best suited to uncovering attitudes and issues surrounding technology uptake and use (Lawrence & Tar, 2018). Eleven Bateq people and two tourism stakeholders were the subjects of observation and in-depth interviews. The saturation sample size, according to Hagaman & Wutich (2017) and Braun & Clarke (2019), is six to sixteen interviews. Therefore, it appears that eleven interviews will be sufficient and accurate for this study.

The key informant interviews are qualitative, in-depth interviews with community-aware individuals. The purpose of key informant interviews is to collect information from a variety of individuals with firsthand knowledge of the community, such as community leaders, professionals, and residents (Kilkelly et al, 2023). With their specialised knowledge and understanding, these community experts can provide insight into the nature of problems and make suggestions for their resolution (Barakagira & Paapa, 2023).

Using qualitative observation, a phenomenon's traits or qualities are described without the aid of quantitative measurements or data (Pyo et al, 2023). Instead, the observation is based on how the observer interprets what they personally see, hear, or feel. Naturalistic observation made by the researchers were tested against the perceptions of residents at Kuala Atok, Kuala Sg Tabong village, Kuala Sungai Yong and Dedari.

The data were then analysed using a thematic approach. To identify themes, thematic analysis is a qualitative data analysis technique that entails reading through a data set derived from in-depth interviews with informants and looking for recurring patterns of meaning (Squires,2023).

3. Finding and Discussion

Respondent's profile

The respondents for this study were from four different villages, namely Kuala Atok, Kuala Sg Tabong, Kuala Sungai Yong, and Dedari. The village with the highest number of respondents was Kuala Atok, with four participants, followed by Kuala Sg Tabong, with three participants. Kuala Sungai Yong and Dedari had two participants each.

Table1: Respondents Profile

Villages	No of Respondents	Sex	
		Male	Female
Kuala Atok	4	3	1
Kuala Sg Tabong	3	2	1
Kuala Sungai Yong	2	1	1
Dedari	2	2	0

Technology Adoption among Aboriginal People

Technology is essential to all. During the interviews, a question was asked on the perception of Bateq people towards technology:

Is technology important to you?

According to the results depicted in Figure 1, many respondents (10 out of 11) from both the younger and older generations agreed on the significance and utility of technology in their daily lives. Notably, the only respondent with contrasting viewpoint was an elderly individual (approximately 70 years old). These finding underscores technology's crucial role in the lives of the Bateq people residing in Taman Negara Pahang.

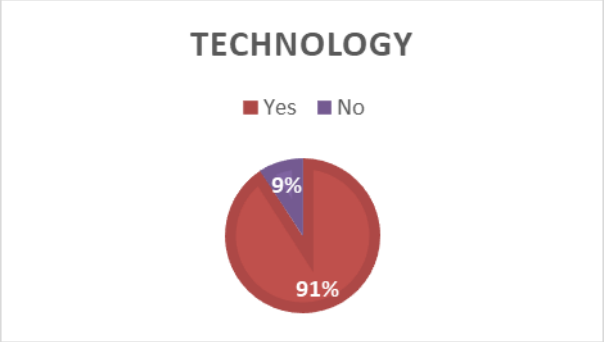

Figure 1: Percentage of the Importance of Technology

What is the technology that you used here?

There are three primary technologies that have been utilised by the Bateq community in Taman Negara. These technologies include, and smartphones, solar panels, and diesel generators.

Smartphone

During the interviews, respondents highlight that they have smartphones. The younger generation used smartphones during the pandemic for education. Besides that, they have social media and communicate through messenger and WhatsApp. The younger generation also watches videos, YouTube and learns using the telephone.

"Here, we have the telephone. We use Facebook, Instagram, and WhatsApp. We use the telephone to communicate with others." (Informant 1)

"We only get the connection in certain areas, so we must go there. Here, we only get Digi coverage." (Informant 3)

The study's findings on utilising the information and communication technology (ICT) ecosystem in South Africa revealed that mobile phones serve multiple functions beyond their primary purpose of making calls. Specifically, the devices are often employed as a source of illumination in low-light settings, a means of accessing radio and music content, and, notably, as a necessary means of receiving urgent information from family members in cases where airtime may be limited or unavailable (Rey-Moreno et al., 2018). The study highlights the usage of mobile phones among the local community. However, it only highlighted that mobile phone is mainly used for social media. Meanwhile, regarding coverage issues, this village only gets certain coverage. It is just a preliminary finding and requires further study that should focus on identifying the usage and coverage used for mobile phones.

However, The ICT usage among the Bateq communities also needs further analysis. Modernisation provides education benefits and improves civilization, among other things. However, for sustainability and tourism purposes, it will give some constraints for development. In contradiction with the interviews from the tourism operators, they highlighted that the Aboriginal people should not be exposed to modernisation and technology as this can change their lifestyle and culture and affect this generation's sustainability.

"We are not saying that we do not support technology in this community, but it will affect their lifestyle. If possible, we want them to sustain their lifestyle so that tourists can see and experience this community's lifestyle when they come here. We, as the operator, can show the tourist how they cook, what they eat, and other things that are unique to the tourist." (Informant 12). Other than that, an observation is made on the technology that they used in these villages:

Figure 2: The Charging Area at The Village

Figure 2 illustrates the charging area in the villages. All the villagers charge and leave their phones at the designated charging area where the power comes from the generator. There are no safety issues as the villagers are those within the family, and there are no outsiders. Telecommunication access is among the issues highlighted here. In the ICT ecosystem, access to battery charging may determine usage and the capacity to communicate and build knowledge (Rey – Moreno et al., 2018). However, telecommunication and electricity access in rural areas is neither easy nor profitable. Therefore, it shows the limited access to the network and electricity in these areas.

Solar Panel

A solar panel (also referred to as "PV panels") is a device that converts light from the sun, which consists of particles of energy called photons, into electricity that can be used to power electrical loads.

Figure 3: The Solar Power Used at The Village

Figure 3 illustrates the solar power used in the village. The villagers used solar energy to get power sources as it is the most promising backup energy due to its many advantages over other resources. Solar energy is a naturally available and clean energy source derived from the sun that can be exploited directly to generate electricity and used for telecommunication (Mikhilef et al., 2012). Hence, the usage of solar power is useful and viable in Bateq communities at Taman Negara Pahang**.**

Diesel Generator

Diesel generators are very helpful machines that turn diesel fuel into electricity. To make electricity, these machines use both an electric generator and a diesel engine. Diesel generators burn diesel fuel to turn some of the chemical energy in the fuel into mechanical energy.

Figure 4: The Diesel Generator to Get the Power Sources at the Village

Figure 4 illustrates the diesel generator used to get the power sources in the village. The electricity issues in Malaysia showed that electricity in rural areas is still limited, and diesel generators are usually employed as the first solution for electrification of these areas. However, the solution has disadvantages, such as high fuel and maintenance costs (Izadyar et al., 2016). Additionally, environmental issues were highlighted, such as the harmful gasses emitted by diesel generators. Therefore, it is crucial to consider alternative energy and environmentally friendly sources regarding cost and other constraints (Shin et al., 2015). Therefore, the diesel generator usage in these villages needs proper analysis for future improvement.

4. Conclusion and Recommendation

This study is the preliminary analysis of the Aboriginals' involvement in ecotourism and technology adoption, and it highlights technology adoption among the Bateq communities at Taman Negara Pahang. Most of the younger generation have mobile phones and access to the internet. However, the villages at Taman Negara Pahang have limited electricity and telecommunication access. The usage of solar power and a diesel generator is the main source of power in these villages. Even though this community is already involved in ecotourism, they can still sustain their lifestyle. It can be seen in their village that only minimal use of technology is adopted among these communities.

This study is a preliminary analysis based on observation and interviews conducted among the local communities and tourism operators. Future studies can focus on mobile usage among

these local communities, the technological impacts on the sustainability of indigenous tourism, the environmental impact of using diesel generators and solar power in these National Park areas, and the need for telecommunication access at the Taman Negara Pahang. This study can show the low adoption of technology among the Bateq communities. Since the pandemic covid – 19 impacts education, tourism industry involvement, and technology adoption among these local communities, further study on Aboriginal tourism and technology adoption is required to sustain the communities and monitor the development of these local communities for future benefits.

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