

## **EXPLORING TOURIST EXPERIENCES IN THE LOWER KINABATANGAN RIVER, SABAH: EVIDENCE FROM ONLINE REVIEWS**

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### **ABSTRACT**

Global demand for wildlife tourism is rising and maintaining a positive tourist experience is essential to ensuring the industry's long-term survival. A top location for wildlife tourism, the Lower Kinabatangan River, located in Sabah, Malaysia, is impacted by its surroundings and requires careful management to maintain its reputation for offering pleasant wildlife tourist experiences. This paper aimed to explore tourist experiences in the Lower Kinabatangan River using user-generated content in Web reviews. This paper utilised 186 online reviews extracted from the TripAdvisor website and analysed the data with Leximancer software. Three themes were derived from the data analysis: river, monkey, and trip. The cloud-generated concepts were discussed through the tourist experience's servicescape context. The result reveals that most tourist (87.63%) shows positive overall experiences; however, some do show concerns about the issue of rubbishes, dead fish in the river, the invasion of oil palm plantation, and forest destruction. The valuable insights offer a better understanding of the determinants of tourist experiences for the Lower Kinabatangan River to formulate strategies to increase their positive experiences and draw up alternatives to minimise the negative experiences.

**Keywords:** Tourist experiences, Lower Kinabatangan River, Sabah, Online Review, Wildlife

### **1.0 INTRODUCTION**

Wildlife tourism exemplifies numerous research and management issues affecting individuals operating at the border between the economy and environmental resources. Wildlife tourism is booming in terrestrial and marine contexts, but improper management can have detrimental effects (Rodger, Moore, & Newsome, 2010). Wildlife tourism destinations dependent on surrounding land activities require careful management to offer positive wildlife tourist experiences. Conflicting interests and demands complicate balancing conservation and wildlife tourism (Catlin, Jones, & Jones, 2011).

Countries that rely on wildlife tourism must critically analyse the wildlife-tourist relationship as human and ecological factors must be harmonised for successful wildlife tourist management (Duffus & Dearden, 1990; Newsome et al., 2017). In order to attain this harmony, people must know how valuable wildlife is to tourists and the industry's economic and social implications. Ignoring tourists' negative experiences might jeopardise the sector and the local community's well-being (Reynolds & Braithwaite, 2001).

The Lower Kinabatangan River is one of Asia's best wildlife spectacles, and Sabah's tropical rainforests are a prominent wildlife tourism destination (Chan & Baum, 2007). Due to private land acquisition by the tourism providers, strategically located along the Lower Kinabatangan

River in the last twenty years (Newsome et al., 2017). In addition, the Lower Kinabatangan River's wildlife tourism potential has led to a surge of lodges for the past 20 years. The cruisers transporting tourists along the river also rise and create traffic during peak hours. In order to ensure that the Lower Kinabatangan River remains one of the world-renowned wildlife tourism destinations, the quality of tourist experiences must be maintained or increased. Degrading these opportunities might drive away certain tourist groups and make the region less attractive to mainstream tourists (Duffus & Dearden, 1990; Newsome et al., 2017). This paper aims to explore the lower Kinabatangan tourist experiences.

This paper used user-generated content, which refers to tourist behaviours that share various online content, such as photos, videos, and texts (Hausmann et al., 2018), which are referred to in the literature as "user-generated content," to gain insight into the tourist experiences in the Lower Kinabatangan River (Brochado et al., 2019). Recent studies have emphasised the benefits of analysing this content, such as reviews and traveller ratings (Zhang and Cole, 2016). The primary goal of this article was to uncover the key themes and concepts of tourist experiences using content analysis of information gathered from TripAdvisor, a well-known travel review website (Brochado, 2019). This study aimed to identify the key themes in traveller narratives posted online, particularly those from Lower Kinabatangan River, Sabah.

## **2.0 LITERATURE REVIEW**

### **2.1 River and Wildlife Tourism**

Rivers are usually linked with transportation and the provision of needs such as food and water throughout the history of civilisation. The river also supplied water to fertile land for agricultural purposes and acted as a trading route. Early well-known civilisations are noted for their towns being located on the banks of world-famous rivers such as Mekong, Yangzi, and Yellow (Janin et al, 2022). These rivers have remained inextricably linked to the development of contemporary cities through which they flow.

River function has naturally evolved as society has progressed. Part of this progression may be seen in the rise of river tourism, which allowed the river to be 'commercialised' as a product that sells experiences (Janin, et al, 2022). José et al. (2018) argued that different bodies of water could support a variety of tourists, including beach tourism, river tourism, reservoir, lake, natural pool tourism, and thermal water tourism. When viewed as a wildlife tourism asset, rivers emanate beauty, peace, and adventure that grab tourists' attention, which may take the form of a big city, a rural, or a modified riverscape (Prideaux & Cooper, 2009).

Wildlife tourism describes a variety of wildlife tours. It differs from other nature tourism since it aims to observe and learn about local wildlife without affecting the ecosystem (Curtin, 2007). It might involve everything from passive observation to feeding and touching the subject animal and can occur at zoos, aquariums, wildlife parks, game reserves, or in the wild. In order to meet the increasing demand for tourist desire to watch, engage, and photograph wildlife, river cruise tour operators have highlighted all sorts of packages.

According to Curtin (2007), there are three types of wildlife tourism. The first type is non-consumptive, which is defined as human recreational engagement with wildlife wherein the focal organism is not purposefully removed or permanently affected by the engagement. The second type is consumptive, which entails the removal of the focal organism from the environment and is ethical. This definition is based on the notion of the third type -non-consumptive usage, which refers to giving a service rather than a good and that one person's

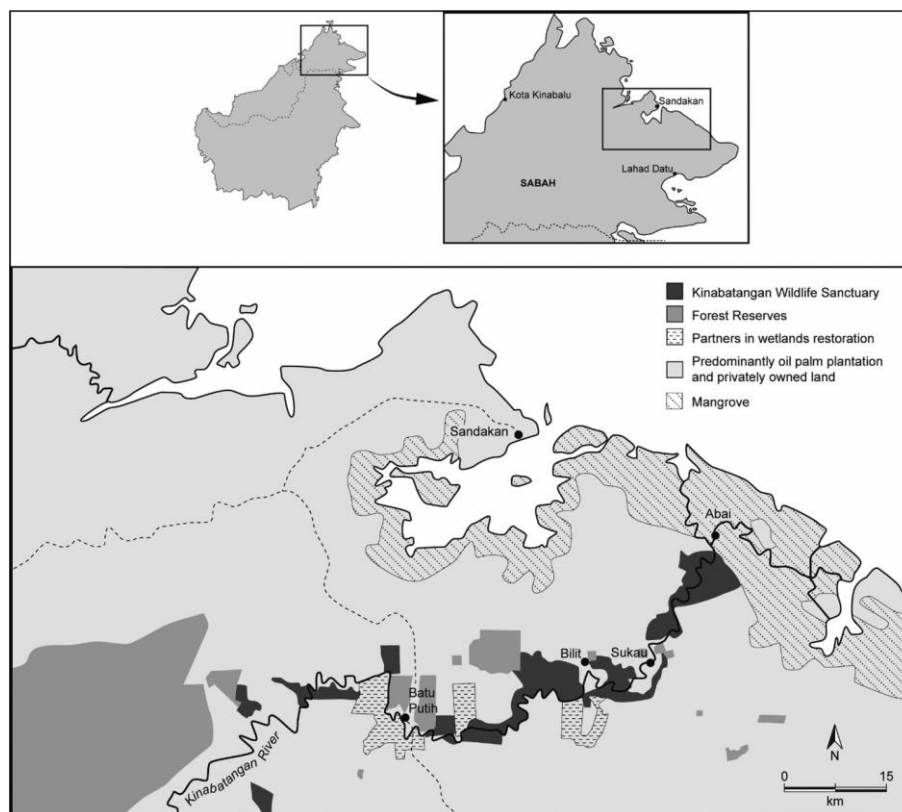
activity does not affect another person's experience unless there is any disturbance occurred (Duffus & Dearden, 1990).

## **2.2 Wildlife Tourism in the Lower Kinabatangan River, Sabah**

The 76 major rivers of Sabah originate mainly from Mount Kinabalu and the Crocker Range. However, only a small number of these significant rivers are used for wildlife tourism, including the Kinabatangan, Padas, Tuaran, Bongawan, Klias, Membakut, Binsuluk, and Tempasuk rivers. River rafting, riverside recreation, and river cruises are three sorts of activities commonly offered along rivers where tourism occurs, and a river cruise is the main activity provided for wildlife tourism in the Lower Kinabatangan River (Janin et al., 2022). The tour operators providing the river cruise were mainly focused on viewing wildlife such as fireflies, proboscis monkeys, macaques, numerous bird species, and peat plants along the riverbank (Goh, 2015).

Kinabatangan River is Sabah's longest river, spanning 560km from Crocker Range to the Sulu Sea (Figure 1). At least seven distinct natural vegetation zones, including the peat swamp forest, freshwater swamp forest, mangroves, forest on limestone, riparian forest on the river levees, and aquatic plants of the numerous oxbow lakes, are accessible due to the amount of rainfall and sunlight (Mansourian & Vallauri, 2013). The region's physiography may be divided into the coast, middle, and upper Kinabatangan River reach. Upper Kinabatangan has high hills, whereas the shore is flat with mangroves and palms. Middle to lower river sections is biodiversity hotspots. Lower Kinabatangan is Malaysia's biggest floodplain and covers the most fauna in Southeast Asia. Lower Kinabatangan features 50 animal species, ten primates, and 200 bird species. Asian elephants, orangutans, Proboscis monkeys, and Sumatran rhinoceros, and saltwater crocodiles need the river floodplain (Goh, 2015). The river floodplain is one of only two areas in the world with ten species of primates and 8 of Malaysia's vulnerable birds (Mansourian & Vallauri, 2013; Goh, 2015).

**Figure 1:** Kinabatangan River Map.



Source: Newsome et al., (2017)

Lower Kinabatangan River is a renowned wildlife-viewing area in Sabah. Sabah's natural qualities and wildlife draw tourists from the UK, Europe, America, and Canada (Chan & Baum, 2007). Around 9.02b tourist receipt in 2019; however, this is underestimated. Most wildlife tourism is at Lower Kinabatangan River ecolodges. Ecolodge providers in Batu Putih, Bilit, Sukau and Abai (Figure 1) offer animal watching, forest hiking, village tours and night safaris (Newsome et al., 2017). The lodges provide small groups of tourists with skilled guides and educational tours. Lodge tourists are offered riverboat cruises as a wildlife-based activity.

### **2.3 Tourist Experiences**

Tourism is commonly known as a socio-psychological experience (Newsome et al., 2017), and it is debatable whether or not wildlife tourism falls under this umbrella term. According to empirical studies, social characteristics like money and socioeconomic class impact tourists' behaviour; however, they are not significant drivers of tourist experiences; instead, the individual's perceptions and feelings matter most (Ross & Iso-Ahola, 1991). The experience of tourists is a complex interplay of elements that influence their attitudes and sentiments concerning their tour (Page & Dowling, 2022; Tshin & Bagul, 2018). In the wildlife tourism site context, tourist interactions with the natural world, the surrounding area, and other kinds of stimulation are components of tourist-desired services. Experiences are the subjective mental state perceived by tourists throughout a service contact (Otto & Ritchie, 1996). Thus, wildlife tourism destination attractions may be viewed as "experiential" goods that facilitate tourists' sensations, emotions, and knowledge, much like how river tours enable comparable experiences (Arnould & Price, 1993). A symbiotic link between tourists and resources has also been argued to depend on the tourist's perspective (Chan & Baum, 2007).

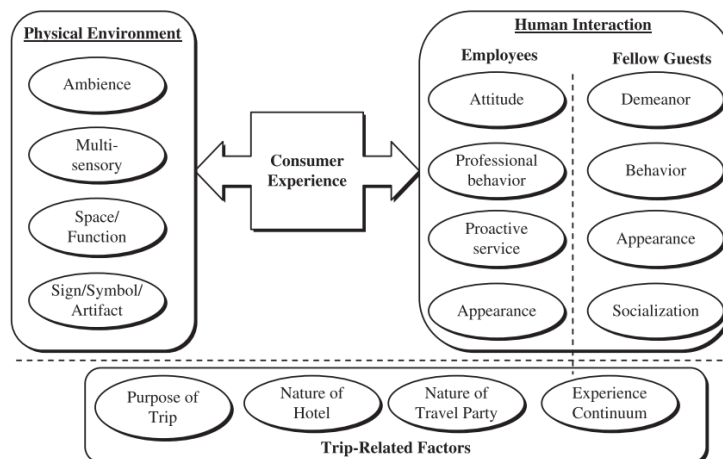
In many tourism sectors, there has been a rising recognition of the significance of tourists' experiences (Chan & Baum, 2007; Tshin & Bagul, 2018). Museums, river, skydiving, and heritage sites, are just a few of the places where the empirical study on tourists' experiences has been conducted (Chan & Baum, 2007). The expressive or hedonic elements have been emphasised by leisure and tourism researchers as a critical component of satisfaction assessment in other contexts (Crompton, 1979; Otto & Ritchie, 1996). Experience is thought to play a significant role in determining contentment. The experiential character of consuming in the context of the service experience leads to pleasure, which includes both perceptions and experiences (Otto & Ritchie, 1996). In evaluating contentment, emotional or experiential components typically outweigh utilitarian ones (Crompton, 1979). Tourist experiences and service satisfaction have been proven to significantly influence the psychological environment, which refers to the subjective emotions and feelings that individuals experience when utilising a service (Chan & Baum, 2007).

### **2.4 Servicescape for Tourist Experiences**

Various features generally impact tourist experiences, and the physical environment is an essential aspect that researchers have explored for a long time, where tourists get the services in an environment and join the service co-creation process (Wall et al, 2011; Vargo & Lush, 2004). Bitner (1992) devised the term servicescape, which signifies characteristics of the physical environment that impact tour operators' and tourists' actions in a service context, and these dimensions encompass both tangible and intangible components that produce the tourist experiences (Hoffman & Turley, 2002). Prior research has indicated that servicescape plays a vital role in shaping tourist satisfaction, emotions and behaviours (Turley & Milliman, 2000). As service organisations, it is vital for tour operators to successfully manage the servicescape to enhance the experiences and happiness of tourists and encourage repeat business (Namasivayam & Lin, 2008). Bitner's typology of servicescape analysed the physical components of the setting, including ambient and design variables. However, human

relationships and intangible services supplied by hotels are also quite significant. The engagement between employees and tourists was demonstrated to be a critical component in designing physical workplaces. Hence, a servicescape might be either a physical or social setting. The characteristics of the service environment may be divided into physical and social settings, and both can affect service quality and tourist experiences (Baker et al., 2002). Physical settings may affect tourists' ultimate satisfaction with service (Bitner, 1990); on the tourist side, elements such as pricing, tour destination, advertising, and special deals also capture tourists' attention. Hence, Figure 2 shows the conceptual model adopted for this work, including the physical environment, social environment (human interactions) and trip-related factors.

**Figure 2:** Adapted conceptual model for the structure of tourist experiences



Source: Walls, A., Okumus, F., Wang, Y., & Kwun D. J. (2011).

## 2.5 Online User-generated content: Electronic Word-of-Mouth (e-WOM)

In the tourism industry, tourist feedbacks are significant indicators that will help tour operator to design and enrich tourists' experiences (Brochado, 2019). Tourists like to share their experiences via online platforms such as TripAdvisor, and those reviews can effectively reflect tourists' satisfaction. Since Web 2.0 applications have become mainstream platforms allowing users to broadcast their opinions, some online review websites are getting popular globally.

e-WOM was defined by Litvin et al. (2008) as all unauthorised communication aimed towards tourists using Internet-based technology relevant to the usage or features of a specific experience. In the tourism industry, e-WOM has been described by Pan et al. (2007) as the online reviews generated by internet users concerning tourism services and travel destinations, which become a vital source of information for other tourists. Pan et al. (2007) also stated that recommendations from people who have previously experienced tourism products are the most significant foundations for decision-making to travel. Hence, many tourists use online travel reviews for their trip planning.

Richins (1983) defined word-of-mouth (WOM) as the interpersonal contact among tourists regarding their personal experiences and opinions of a company, product, or service. Such messages significantly influence tourists' behaviour, particularly in the hospitality and experience service industries. In the Internet age, e-WOM has a considerably more significant impact than traditional word-of-mouth. e-WOM may be viewed as any good or negative expression (Hennig-Thurau et al., 2004), and the media of e-WOM can take any shape, including reviews, comments, discussion forums, instant messaging, e-mail, and chat rooms, particularly online social travel networking (Mauri & Minazzi, 2013).

Online social travel networking, such as TripAdvisor, enable users to engage and provide reviews on hotels and tourism items. As previously stated, TripAdvisor is an online platform where the majority of information generated by travel-related companies resides and where customers can post their comments, reviews, and ratings on the tourism products and services they have experienced, thereby assisting other tourists in narrowing down their destination options and making travel decisions (Barreda & Bilgihan, 2013). In addition, TripAdvisor has been formed as a vital arena for e-WOM to deliver the most recent information by internet users from across the globe (Hennig-Thurau et al., 2004). The relevance of TripAdvisor for tourists and tourism-related businesses continues to grow.

### 3.0 METHOD

The online reviews of tourists were acquired from TripAdvisor, renowned for its vast quantity of reviews. Tourists have considered TripAdvisor an unbiased information source and believe independent travel websites are more trustworthy (Fileri, 2016). The data was put into an Excel document with the following columns: tourist type, review date, review data, review title, and quantitative rating (Brochado, 2019). A total of 186 online reviews with 21,056 words were gathered. The sample consists of all English-language evaluations concerning the Lower Kinabatangan River between 17 January 2012 and 21 November 2021. Table 1 displays the profiles and tourists' rating. The majority of tourists (31.18%) travelled with couple, followed by tourists travelling with friends (19.89%), family (13.44%), and solo (8.0%). A minority of business-travelling tourists (1.08%) and another 26.34% were unidentified. 87.63% of tourists evaluated the Lower Kinabatangan River favourably, with 68.28% rate excellent and 19.34% rate very good. Approximately 6.45% of tourists evaluated the river as average. Minority performance is rated as bad (2.69%) and horrible (3.23%), for a total of 5.92%.

**Table 1:** Tourist profiles and ratings

Traveller Type	Frequency	Percentage	Rating	Frequency	Percentage
Couple	58	31.18	Excellent	127	68.28
Family	25	13.44	Very Good	36	19.35
Solo	15	8.06	Average	12	6.45
Friend	37	19.89	Poor	5	2.69
Business	2	1.08	Terrible	6	3.23
Not stated	49	26.34			
Total	186	100		186	100

Source: TripAdvisor, 2022.

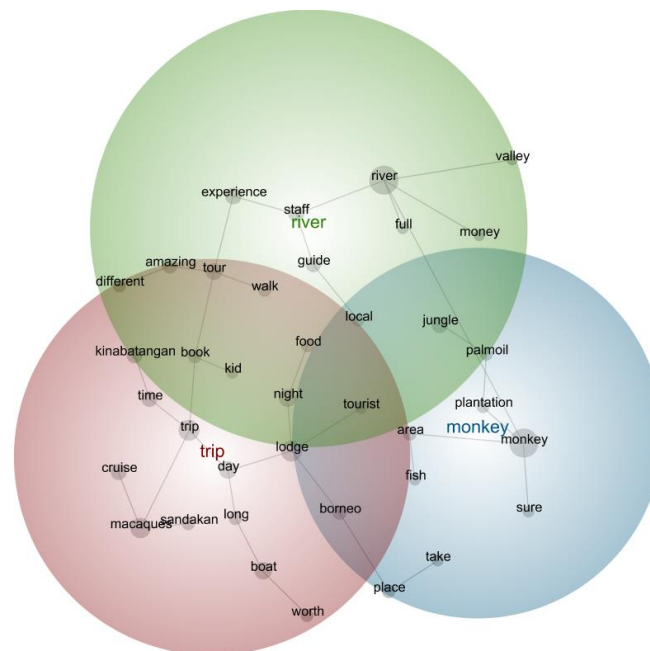
The data were analysed using content analysis with Leximancer software. Leximancer is a relatively simple, adaptable, and complete application that combines text-mining and natural language processing. It helps the researcher to analyse, visualise, and understand the collected textual materials (Biroscak et al., 2017). Using text data mining algorithms, other content analysis approaches have been used to illustrate tourists' experiences by highlighting top word occurrences and co-occurrence.

Leximancer software enables an inductive identification of themes with the least amount of manual work on the researcher's part, in contrast to typical content analysis approaches that call for the researcher to create a list of codes and criteria before analysis (Tkaczynski et al., 2013). More specifically, the text analysis programme Leximancer converts electronic lexical co-occurrence data from natural language texts into semantic patterns (Wu et al., 2014). These data were organised into themes and evolved into a thesaurus through a learning

process (Tkaczynski et al., 2015). This software automatically recognises concepts based on how frequently they appear together in a text block.

Finding key concepts and themes, viewing data graphically, and analysing ideas while reading the text for deeper contextual relationships help the researcher more effectively understand the data (Wu et al., 2014). Leximancer provides a diagrammatic representation of the data (i.e., a concept map), visually displaying the links between distinct ideas and themes and highlighting their interconnections (Brochado, 2019). The most influential and frequently used concepts, which are often also the most linked, are represented by larger circles. Darker circles on the map indicate more critical issues, and circles are overlaid to capture clusters of ideas that describe the content's central themes. Concepts mentioned together in the text are also closer or overlap on the map because the closeness or distance between ideas in Figure 3 shows the strength of their relationships.

**Figure 3:** Concept Map Generated From Tourist Online Reviews



Leximancer provides concept codes to specific text segments after determining the collection of themes (Brochado, 2019; Tkaczynski et al., 2015). The researcher can assess text blocks that suit each topic using Leximancer's query feature. Each theme may be characterised and illustrated by a collection of stories drawn from the analysed Web reviews, as in past tourism research (Brochado, 2019).

#### **4.0 RESULT & DISCUSSION**

Table 2 summarised the outcomes of tourist experiences based on the themes and was further categorised based on the servicescape dimension. The main themes identified are river, trip, and monkey. The river theme includes the concept of river and jungle, which fall under the physical environment dimension. A typical review describes as follows:

*...and I greatly enjoyed **river** trips, the lush greenery, vast giants of trees, and all abundant life, the smell of the jungle, and the sound of the **jungle** (Nov 2017, travel with friend, rating:5)*

*It's an absolutely incredible place, a real **river** in the **jungle** with plenty of animals, and I was so happy to see the pygmy elephant in nature. (June 2016, travel solo, rating:5)*

**Table 2:** Summary of the tourist experiences based on theme and category

<b>Theme</b>	<b>River</b> (304 hits)	<b>Trip</b> (268 hits)	<b>Monkey</b> (298 hits)
<b>Physical Environment</b>			
Multi-Sensory		food	
Space	river, jungle	lodge	plantation, palm oil
<b>Human Interaction</b>			
Employees	staff, guide		
Fellow Tourists		Tourist	
Resident	local		
<b>Trip-Related Factors</b>			
Purpose of Trip		trip, Borneo, place, Kinabatangan, tour, cruise, macaques, Sandakan	monkey
Nature of Travel Party		kid	

Most of the tourist reviews before the Covid-19 pandemic were considered positive; however, recent tourist review tends to be negative and state that the jungle strip is getting smaller and even able to hear the sound of chainsaws during the visit, examples:

*On our hike along the ridge, you can clearly see the very small amount of **jungle** left; it is heartbreaking. We could also hear the constant notice of the chainsaws proving it's literally being demolished one tree at a time, and it will not be long before there is no **jungle** left in this area. (Aug 2020, travel with friend, rating:3)*

Apart from that, the cleanliness of the river is becoming an issue that contributes to the negative tourist experiences , for example:

*We had been here for 11 years and now we saw the difference as there was more pollution like plastic bottles in the **river** etc. It is sad it goes this way and there are too many lodges in the area. Last we find it more peaceful and even if it was much more basic, it was much better. To disappointed this time (May 2017, travel with family, rating:3)*

*The **jungle** strip that is left is sadly really narrow and short. Thanks to companies that produce Kinder, Nutella, Daim and other prepared food the jungle has disappeared. The plastic floating in the river also put me in a bad mood. (April 2020, travel with friend, rating:2)*

The river theme also encompassed the human interaction dimension (interaction with the employee) and linked with concepts such as staff and guides. Most of the reviews thank associated with the employees are positive, for example:

*Friendly company of cool **guides** and other **staff**.(Aug 2019, travel with friend, rating:4)*

*This river is amazing - wildlife in abundance and in an incredible setting. We were accompanied by a **guide** from S&I tours and a local **boatman** who clearly knew the best places to take us for wildlife viewing (June 2015, travel with friend, rating:5).*

*Our **guides** and **lodge staff** were welcoming and friendly at both lodges (Nov 2012, travel with couple, rating:5).*



Apart from the interaction with the staff, this theme also reflects the interaction between tourists and local residents through homestay programmes, for example:

*This was an adventure for us. Wild boat rides to see anything, eating with the **locals**, seeing the fish being caught and buying it for dinner (Dec 2014, travel with couple, rating:5)*

*We stayed in Bilit with the town's homestay program. This was an amazing experience..... The river experience was good; however, staying with the family was a highlight. We made a quick connection in a short amount of time. Not recommended for people who need a TV and a/c. But if you want to connect with **local** people and have a different holiday experience, we highly recommend it. (Oct 2014, travel with family, rating:4)*

*...You live as part of the family ...Our hostess Nikmar and her family are very community-minded. On the second day, we found many **local** women of the village at the house preparing lunch for volunteer workers who were cleaning/tidying up the riverside. I would do this again but would love longer - a week to 10 days although that would perhaps be a little intrusive on the family. (Feb 2016, travel with family, rating:5)*

Moreover, the trip theme has showcased the physical environment dimension with the concepts of food and lodge. For both concepts, most tourists have a somewhat positive experience as they do not have high expectations for it, due to the location, in the middle of jungle, for example:

***The food** was unexpectedly delicious. We honestly hadn't expected much from a middle-of-jungle location, particularly as our party of 9 was all vegetarian/vegan and we were prepared for rice and veg, but instead, there was ample selection and variety each day for every meal...(Mac 2020, travel with family, rating:5)*

***The food** was very good (considering the fact that the camp IS in the jungle it was excellent) and the accommodation fairly simple but clean and tidy. (Jan 2014, travel with family, rating:5)*

*The accommodation at Nature **Lodge** was great: clean, comfortable double or triple-room huts in the forest overlooking the river. There was an air con and a fan, an ensuite bathroom with a hot shower, space for luggage storage, and a veranda overlooking the river (Mac 2020, travel with family, rating:5)(Jul. 2015, travel with friend, rating:5)*

*The **accommodation** at the river lodge was basic but good enough given the location in the countryside (Mac 2020, travel with family, rating:5)*

The trip theme reflects the human interaction dimension (interaction with other tourists). Most of the reviews thank associated with the tourist with primarily negative reviews as the tourist who opt for nature tourism are not keen on meeting big groups of tourists that may interrupt their serenity, for example:

*Provided tours that proved his knowledge of the area and avoided the crowds of **other tourists** travelling in large groups. I was able to get up close and personal with many different animals... (Mac 2020, travel solo, rating:5)*

*...in this already **tourist**-crowded area of Borneo, we were always the very first and only in the morning on the river (the tour starts at 6.30 am), and we were very often the first ones on a spot where we could see the animals for 15 minutes, before all the other overload boats arrived and transformed the place to a gathering (Oct 2019, rating:5)*

*...but the peace is often destroyed by hordes of noisy Chinese **tourists** arriving in fibreglass motor boats (Feb 2019, rating:5)*

The trip theme reasonably illustrates most of the trip-related factor dimensions with concepts such as trip, Borneo, place, Kinabatangan, tour, cruise, macaques, and Sandakan. The concepts mentioned refer to the factors that motivate tourists to choose the Kinabatangan river as their destination, for example:

*We have never been to the Amazon, but this river is just as amazing in its own way. During a **trip** down this river, we saw crocodiles, eagles, many different monkeys, and kingfishers. During a night **trip**, we saw a tree that the guide called the Christmas tree - it was full of fireflies, and we saw one of the most awe-inspiring displays in nature (Jan 2020, rating:5)*

*During my **trip**, I was able to see multiple wild orangutans, crocodiles, a variety of birds, and innumerable monkeys, including the rare red leaf monkey and a TON of proboscis monkeys. (Nov 2019, travel solo, rating:5)*

*Had a small boat for all of the **cruises** and our expert guide, Faezan, pointed out loads of animals, including troops of 15-20 proboscis monkeys at a time, families of orangutans, crocodiles, short and long-tailed **macaques**, monitor lizards- and a whole host of birds and insects, all in their natural habitats along the banks of the **Kinabatangan** river. (Mac 2020, travel with family, rating:5)*

*My wife and I travelled through **Borneo** to experience the wildlife. Staying at the Abai Jungle Lodge, our tour guide Albert, and boat pilot, Mr. Li of SI Tours, took us on numerous **cruises** up and down the river. This was a truly amazing experience. The wildlife we saw included orangutans, langurs, **macaques**, proboscis monkeys, crocodiles, hornbills, owls, and fireflies. (July 2019, travel with couple, rating:5)*

In addition, another concept for the trip theme – kid- was also categorised under the nature of the travel party (trip-related factor). Young children are one of the crucial segments of nature tourism as it provides a hands-on learning opportunity for them to learn about nature.

*With it being mainly boat trips, it was suitable for young children, but I'd recommend taking brollies for shade and a fan. Our **kids** were fascinated throughout and loved Mr Aji. We had interesting chats with him about the palm oil plantations and our 7-year-old daughter was inspired to write to a company about them ruining the rain forest (Sept 2019, travel with family, rating:5)*

*Epic wildlife spotting adventure with young **kids**! We had the most amazing river cruise trip with River Junkie and spotted so much wildlife in the rainforests of Borneo..( Mac 2020, travel with family, rating:5)*

Another theme that emerged from the analysis is the monkey, literally one of the main attractions that draw tourists to visit Kinabatangan River,

*I was able to get up close and personal with many different animals, with the highlights being hundreds of monkeys crossing the river right above our heads and a mama orangutan and its baby just above us in a tree outside the Gomantong cave (Mac 2020, travel solo, rating:5)*

The concepts that were associated with this theme are plantation and palm oil for its physical environment, for example:

*This was the highlight of our trip. There are some negatives, but they're all because of **the palm oil plantations**. But if you're coming to Borneo, they're unavoidable, as they're everywhere. It was, however, very good to learn about it all and rather warming to find out that now all of the areas that are left are actually protected. (Mac 2018, travel with couple, rating:5)*

Furthermore, the palm oil and plantation are also associated with fish (see Figure 1), which shows the severity of how the palm oil plantation has effect the overall ecosystem and natural habitat in the Lower Kinabatangan River as stated below:

*Until we did the cruise, we were not aware of how much the **palm oil** corporations are interfering with the environment; not only did they cut the rainforest, but the river was full of dead **fish** due to poisoning from the **palm oil plantations**, and apparently this is happening at least once a year when the river floods the **plantations** and it last for several weeks. Really sad. (Jan 2020, travel with couple, rating:5)*

*The river is flanked by forest, but you can sense that the area of the forest is relatively small, and wildlife is being pushed out. The worst of it is that there are clearly chemicals leaching off the palm oil plantations into the river. You will quickly see loads of bloated dead **fish**, something has clearly poisoned them, and there are agrochemicals everywhere. (Mac 2020, travel with family, rating:5).*

The Kinabatangan Wildlife Sanctuary as well as its surrounding ecosystem's sustainability as a tourism destination, are adversely impacted by continuous land clearance and expansion of oil palm plantations on private property, which poses a serious danger to ecosystems (Kler, 2007).

## **5.0 CONCLUSION**

The sustainability of wildlife tourism depends on how tourist experiences it, particularly for tour companies and lodges located along the Lower Kinabatangan River. There is no particular research has focused explicitly on the tourist experience towards wildlife tourism in the lower Kinabatangan environment using internet reviews, despite earlier studies focusing on the motives of foreign ecotourists and their satisfaction with ecolodges at Sukau (Chan & Baum, 2007).

Overall, the findings indicate that tourists were quite pleased with their overall travel experience; however, those who were not pleased expressed worries about the number of boats present during sightings, features of ecologically responsible travel, and the preservation of wildlife. Particularly, tourists observed floating trash, the expansion of the oil palm sector, and a lack of assurance over the proper protection of the Lower Kinabatangan River and its related ecology. The drawbacks identified imply that ecolodge owners might further develop their operations in order to improve the region's wildlife tourism sustainability and the experience of seeing animals. Regarding experience quality and tourist happiness, the study also has administrative and operational implications for wildlife tourism management. The need for a regional or landscape-scale vision for the Kinabatangan that emphasises greater management and protection of important wildlife species, as well as the need to set a clear direction for tourism development and management for the region in the future, are just a few examples of how it can be used to inform policy and planning. In addition, there is a need to address regional tourism-related problems, including overcrowding and tour guide standards. Finally, the tourist survey acts as yet another early warning indicator that unfavourable change may occur and that the Lower Kinabatangan River experience, one of Asia's premier wildlife tourism spectacles, is in danger of deteriorating over time.

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