

Tourist Wildlife Consumption Qualitative Considerations: Sabah, Malaysia

(Full Paper)

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ABSTRACT

This study of 464 outbound tourists at the Kota Kinabalu International Airport (KKIA) investigates their perceptions after visiting various protected wildlife destinations in Sabah, Malaysia. It considers the conservation of these tourism destinations. Tourists recognize the destination, its wildlife and the habitat as unique, special, and unpredictable. Respondent tourists offer shared knowledge and new understanding, and other considerations around Sabah's global wildlife tourist market – such as how to accommodation, travel, and cost can enhance (or degrade) Sabah's wildlife tourism activities and experiences, and how the service qualities around this wildlife tourism can be measures against the tourist's perceived satisfaction levels. The study concludes Sabah's wildlife and natural habitats do deliver substantive tourist experiences and activities, and these coalesce into strong overall satisfaction levels within the tourist.

Keywords: Sustainable tourism, destination experience, satisfaction, conservation, tourism wildlife behavior, qualitative.

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INTRODUCTION

Tourism and its associated travel is one of the world's largest industries. In 2016, its global economic contribution (direct, indirect and induced) exceeded US\$7.6T, whilst its direct economic impact (including accommodation, transportation, entertainment and tourism attractions) reached US\$2.3T (Anon, 2016).

Types Of Tourism

Vuoristo (2002) notes that the common conception is that travelling is done for three main purposes: (1) leisure, recreation and holidays, (2) business and professional and (3) visiting friend and relatives etc.). Regional tourism can either domestic tourism or international tourism. This can be further divided into groups including: culture tourism, mass tourism, nature-based tourism, and alternative tourism. Numerous niche tourism markets also exist. Tourism also considers impacts including: economic, ecological, and social impacts

Leiper (2008) suggests pull factors (such as: climate, geographical qualities, cultures others) are responsible for tourists travelling to a particular regions and then seeking a specific destination. Push factors entice an individual to travel (Järviluoma 1994). According to Leiper (1979) attractions include events, facilities, and sights. These orientate towards tourist experiential opportunities (Vuoristo, 1998). Further, the tourist often seeks attractions that are different from each. For example they may encounter different types of animals such as birds, fish, mammals, reptiles, and ideally not those in captivity (Tribe 2004).

Wildlife Tourism

Today, some tourists seek authentic natural pursuits including ecotourism, adventure, destination action/activities, wildlife encounters, and sustainable habitat/conservation engagements – whilst also seeking value-for-money (Saarinen, 2012). In such environments animal-based tourism can also be of a wildlife tourism and experiential format (Newsome et al., 2004; Saarinen, 2012). Here, there remains a strong relationship between tourist experiences and the type of tourism that typically utilizes the wildlife animal as a main attraction.

As one of the 12 mega diverse areas of the world, the Sabah Government through its Development Corporation, in 2007 claimed Sabah to be a global destination for experiencing international biodiversity attractions. To date, very few studies have investigated wildlife tourist satisfaction rather at a destination, or aligned to particular activities (Duffus and Dearden, 1993; Davis et al. 1997; Leuschner et al. 1989); Foxlee, 1999; Hammitt et al. 1993; Schanzel & McIntosh, 2000), and none have also collectively studied wildlife tourism in-situ (at destination).

Moscardo et al. (2001) qualitatively describes holiday wildlife tourism experiences. They observe the quality of experience is enhanced when a tourist touches or feels such animals – especially baby animals. Negatives are generated when tourists are harassed, frightened or attacked by wildlife, or when tourists note inadequate enclosures, facilities, explanations or welfare.

Swarbrooke et al. (2003) says 24-40% of tourists believe they are wildlife-related tourists, whilst 40-60% claim to be nature-related tourists. The Sabah Tourism Board 2011 states around half of Malaysia's population show interest in nature-based tourism. This study investigates the experiences of wildlife seeking tourists in Sabah Malaysia.

Study's Research Question

This study seeks to answer 'does Sabah's wildlife and natural habitats deliver the desired elements (experiences and activities) that invoke enhanced overall satisfaction targets for the tourist?' It also seeks to scrutinize tourist wildlife destination problems and possibilities in Sabah, and to use its acquired tourist information to assess what may be done on a wider scale around all aspects of its animal-based tourist encounters.

Wildlife-based tourism has a close relationship with nature tourism. Saarinen (2012) and Newsome et al. (2004; 2013) state nature tourism is a trending area - based on the natural environment and its attractiveness. This level of conservation and authenticity is also present in ecotourism.

Honey (2008) notes ecotourism is 'travel to relatively undisturbed or uncontaminated natural areas with the specific object of studying, admiring, and enjoying the scenery of its wild plants and animals, as well as any existing cultural aspects found in these areas.' Ecotourism is purposeful - including promotion/conservation, enjoyment/appreciation of nature and culture, and local economic/social benefits but generating minimal impact on the environment. It also has learning and adventure aspects (Fennell & Butler, 2003). Thus ecotourism relates to wildlife tourism aspects.

Yet another aspect of wildlife tourism is adventure tourism. Swarbrooke et al. (2003), terms this 'a physical phenomenon, involving tourists undertaking physical activities in unfamiliar and often inhospitable environments.' Adventure tourism also has non-physical attributes - including intellectual, emotional and spiritual aspects, along with danger, excitement, risk, novelty, and escapism (Swarbrooke et al., 2003).

In 2010 the Sabah Tourism Board stated Sabah's nature-based tourism as being utilized for: wildlife tourism for photography, jungle trekking, and observing/experiencing wildlife including: large animals, primates, and birds. Hence this study engages a wildlife tourism perspective. Higginbottom (2004) defines wildlife tourism as the type of tourism that is based on encounter with non-domesticated (non-human) animals. This also segments into 'wildlife-dependent' and 'wildlife-independent' forms of tourism (Higginbottom, 2004). This study approaches wildlife tourism as nature-based, and as in-habitat adventure related.

Aspects Of Wildlife Tourism

To some, wildlife watching is a non-consumptive form of tourism and therefore a true option of tourism. In watching wildlife, many different species in many different locations are involved in a non-destructive way - leaving the habitat and natural environment with a minimal tourist footprint. This requires supervision costs, and Valentine and Birtles (2004) note that tourist fees can sustain these protected areas – such as national parks.

Moscardo and Saltzer (2004) note tourists want to see animals in their natural settings. Yet, Bulbeck (2005) indicates exhibitions providing interactions (touching and feeding) with animals are of most interest. Lovelock, (2007) discusses hunting and fishing as additional tourist wildlife considerations. Bulbeck (2005) notes entertainment, especially in zoos, is another tourist drawcard - provided the welfare of the in-situ animal is first considered.

Swarbrooke et al. (2003) note geographical dimensions of adventure tourism are reducing, and this has created a tourist demand on the 'last wilderness destinations on earth. Timeliness is another tourist wildlife viewing factor, and although rainforests have substantive wildlife, this environment remains one with dense habitat and low visibility constraints (Valentine & Birtles, 2004). This study focuses on wildlife tourism in Sabah, Malaysia. Sabah state offers a significant range of tropical, coastal, mountainous, and rainforest habitats. These habitats also contain significant, globally-scarce, endemic wildlife species.

THEORETICAL FRAMEWORK

Data collected against the above wildlife tourism aspects is set against the following theories. Experience Theory and Animal Encounter Theory perceive animal encounters against wildlife experiences, and seek sustainability/conservation response ideas from tourists. Experience Theory captures tourist perceptions around their experiences of chosen wildlife attractions/activities. Biodiversity Hotspots Theory draws on the biodiversity within globally-wildlife habitats. Involvement Theory add the tourist emotional reasoning or attitude – as motives including time, wildlife seen, cost, and tourist energy expended at the wildlife destination. These theories establish a wildlife and environmental study and questionnaire focus.

At destination, the tourist adorns/consumes the provided wildlife contact offerings. This involvement enlists preconceived expectations. The tourist participates in engaging activities and so develops individual (personal) behavioral opinions (Ratchford & Vaughn, 1989).

During a wildlife tourism experience some tourists note a perception change as they move from expectations to consumption to reflection. This aligns to Users-Gratification Theory, and to Hamilton and Tee's (2015) motives, consumption, gratification relational pathway model. Here, a perceived involvement motive, along with subsequent consumptive experiences and activities can deliver a satisfaction perception concerning the destination and its wildlife (Fodness & Murray, 1997; Vogt & Anderick, 2003). Theory supporting this arises from the Theory of Planned Behavior and the behaviorally-based Users and Gratifications Theory.

METHODOLOGY

The research team deployed a network-reasoned study approach as outlined in Figure 1. This network process encompassed node revisits, and item refinements.

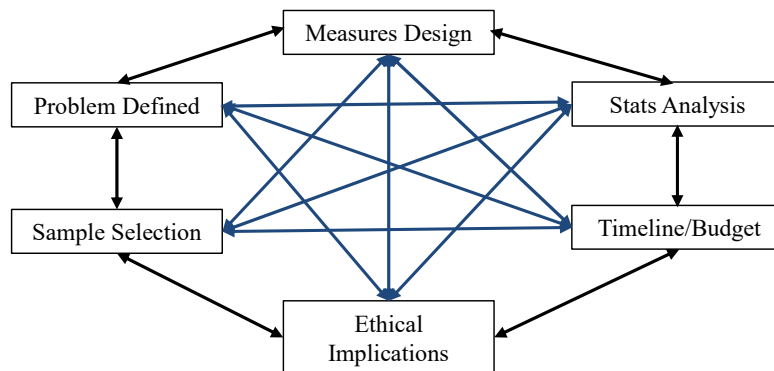


Figure 1: Research planning framework. Source: Adapted from Sapsford, 1999.

Data collection involves 4 steps. First, a review of literature and reports framed the study. Second, a researcher-conducted, in-depth interviews of 15 persons representing tourists, conservationists, and tour operators helped understand: (1) tourists and wildlife experiences, (2) the level of interaction with tourists, and (3) sources of information for wildlife management). Third, focus groups refined the qualitative approaches into specific relational themes including: (1) conservation of wildlife and habitat, (2) wildlife activities and experiences (3) efficacy of the tourism venture, (4) additional habitat sustainability needs, and (e) conservation issues). Fourth, this information coalesced into a (15-20 minute) qualitative-quantitative survey designed to capture why tourists hold certain perceptions. This approach gathered specific and qualitative wildlife destination data from international tourists visiting Sabah through the Kota Kinabalu International Airport (KKIA).

Some studies of different wildlife tourism markets and tourists are shown in Table 1. This table suggests the demography of wildlife tourists typifies those who are often independent, educated, middle aged and financially able to travel and spend, and likely find accommodation around such locations. Hence the survey captures these items.

Table 1: Past tourist studies of different wildlife tourism markets.

STUDY	MAJOR RESULTS
Boxall and McFarlane, 1993 (Canada bird count participants)	Wildlife tourists were more likely to: be older, have higher education levels
Pearce and Wilson, 1995 (NZ International tourists)	Wildlife tourists were more likely to: stay longer, travel further, spend more, be younger. have higher education levels and incomes. be independent travellers
Moscardo, 2000 (Australia Whitsundays tourists)	Wildlife tourists were more likely to: stay longer in the region, be independent travellers
Fredline and Faulkner, 2001 (Australia International visitors)	Wildlife tourists were more likely to: be younger, travel further, stay longer, be on a package tour
Moscardo <i>et al.</i> , 2001 (Australia Tasmania tourists)	Wildlife tourists were more likely to: be female, be younger, independent, longer stay, use the Internet for information

A substantive collation of the early literature closely related to quality tourism experiences is credited to Gayle Jennings in her literature collation (see Ch 1 of her Quality Tourism Experiences publication). The measures (tourism: product quality; experience quality, satisfaction, tourist experience management versus environs, service delivery and qualities, tourism sustainability, host-tourist relations, profitability, experiences, identity and place, and tourism motivation) helped frame this survey's items.

Sabah Study Approach

Sabah State in Malaysia occupies the NE of Borneo Island. It is bordered by several seas including the: Celebes Sea, South China Sea, and Sulu Sea. Since 1995, Sabah's richness of diverse habitat resources, along with its protected wildlife areas, have combined to form a globally recognized regional premier tourism destination. This richness of sea and land biodiversity has now placed Sabah among the top global eco-tourism destinations.

Under the Sabah Wildlife Department, there are 13 differentiated wildlife-based tourism options. Hence, Sabah holds appeal to tourists seeking activity-based destination-emersion attractions, as opposed to those seeking passive destination experiences (Sabah Wildlife Department, 2008).

DePoy and Gitlin (1998) note what constitutes significant knowledge and criteria are derived from different research perspectives and these show variation from one-to-another. Table 2 presents this study's research methodology boundaries.

Table 2: Research methods applied (Saikim, 2019).

TREND TOPIC	RELEVANT REFERENCES
Quality of products (imp. tourism experiences)	Onome, 2003; Weber & Roehl, 1999; Laws, 1998; Murphy, 1997; Vaughan & Russell, 1982
Quality tourism experiences & satisfaction	Yuksel & Yuksel, 2001; Laws, 1998; Murphy, 1997; Chadee & Mattson, 1996; Uysal et al., 1994
Consequences for quality tourism products: quality tourism experience, tourist experience management vs associated environs issues, degradation of environs (marine, cities, terrestrial, heritage sites)	Bhat, 2003; Lawson et al., 2003; Boyd, 2002; Font, 2002; Schneider, 2002; Bauer & Chan, 2001; Harborne et al., 2001; Ross & Wall, 1999; Mak & Moncur, 1998; Murphy, 1997; Ayala, 1996; Moscardo, 1996; Weiler & Davis, 1993; Laws, 1991; Vaughan & Russell, 1982; Smith & Webster, 1976
Service delivery & quality	Warden et al., 2003; Lennon & Harris, 2002; O'Neill et al., 2002; Ryan, 2002; King, 2001; Keane, 1996
Quality tourism experiences & reputation	Boyd, 2002; Font, 2002; Ross & Wall, 1999; Cooper & Morpheth, 1998; Moscardo, 1996
Quality tourism experiences & sustainability	Perdue et al., 1999; Cooper & Morpheth, 1998; Timothy & Wall, 1997; Howell, 1994
Quality tourism experiences & host-guest relations	Neal et al., 1999; Perdue et al., 1999; Howell, 1994; Kim, 2002
Quality of life	Ayala, 1996; Braithewaite, 1992
Quality & profitability	Ryan, 1997, 2002; Urry, 1990, 2002; Lengkeek, 2001; Cohen, 1972, 1979a, 1988
Modes of experience	Campbell, 2003; Bricker & Kerstetter, 2002; Schneider, 2002
Place and identity	Onome, 2002; MacCannell, 2002; Ryan, 1997; Uysal et al., 1994

Surveying Process

A self-administered English language survey (Sarantakos, 1993, captured outbound tourist responses at KKIA. The English language format created minor item understanding limitations (Bradburn et al., 2003a; 2003b, Davies, 1994). A voluntary, one-on-one, brief surveyor clarification offered help in understand a specific item (Blaxter et al., 2001; Hawe et al., 2009).

The literature-based survey items are themed as: (1) perceptions of the experience, (2) conservation perspectives, (3) motivations and expectation, (4) satisfaction with wildlife-based tours, (5) intention of visitation and trip characteristics, along with (6) personal demographics. Table 3 shows the study's qualitative and quantitative characteristics. Some qualitative concepts/items are also quantified to enable further interpretation.

The Statistical Package for the Social Science (SPSS) enabled descriptive analysis (frequencies, means, standard deviations, histograms). Significant wildlife viewing types against other variables enlisted Pearson's Chi Square (Field, 2005; Quinn & Keough, 2002). Five point Likert scale items, non-parametric tests, and Mann-Whitney tests helped determine relative differences with wildlife viewing types (Quinn & Keough, 2002). Factor reduction (varimax, principal components) delivered measurable constructs (Field, 2005). Kaiser-Meyer-Olkin (KMO) adequacy of sampling determined the diffusion (or compactness) of correlations (Field, 2005). Open-ended survey items were coded into Excel (quantitative) and Leximancer (qualitative) Leximancer mappings sought relationships between tourist consumptive, viewing, and differentiation behaviors.

Table 3: Qualitative/quantitative aspects (Adapted: Blaxter et al., 2001 & Creswell, 2003).

METHODOLOGY STEP	OUTCOME
Epistemology	Constructionism
Theoretical perspective	Critical theory, grounded theory
Study boundaries	Time, money, availability of samples, access to situations, gaining co-operation,
Research family	Qualitative & quantitative: mixed methods, fieldwork
Research approach	Survey with case study attributes
Research technique	Questionnaire & face-to-face interviews

ANALYSIS AND RESULT FINDINGS

Demographics

Six hundred and forty six (646) outbound tourists (females 51.6% and males 48.4%) completed survey at KKIA (response rate 41.41%). Tourists in the age group 25-44 years totaled 66.9%. Those aged 15-24 years totaled 18.9%. This tourist age distribution is expected, as it typifies those with personal discretionary funds which may then be deployed into ventures of choice - such as participating in a wildlife experience.

Sixty three per cent (63%) of tourists visited Sabah for the first time, whilst 37% previously visited (N=234). Most tourists are well educated (78.5% with tertiary qualifications, and 20% with secondary or certificate qualifications. Fully independent travel tourists (54%) did not use tour operators - suggesting the majority of KKIA tourists are experienced travelers who likely expect a quality of accommodation, transport and servicing that is comparable to other popular global destinations.

Tourists learned of Sabah's wildlife via: the internet (20.9%), travel guide books (21.1%), and word-of-mouth (WoM) communiques. Hence, management of each wildlife destination operation should offer a globally-competitive, English-

language-version of their website. Additionally the wildlife destination in-situ experiences and activities being offered should aim to enhance the tourist's existing discovery and word-of-mouth expectations.

Many tourists chose Sabah for a unique holiday/tours experience. Across eight options, only holiday (63.8%), time with friends or relatives (13.8%), training and/or research (6.5%), and education (15.9%) categories show substantive reasons to visit. Figure 2 shows the Sabah tourist respondent country-of-residence is globally diverse but most country-of-residence tourists most speak English as either their first or second language. Tourists tend to travel in friendship (29.1%) or family groups (35.5%). Some travel alone (19.9%) or as tour/club members (19.3%). Thus tourists likely share their experiences, and are likely to share their experiences more widely. Hence Sabah's wildlife destinations should aim to provide a quality of tourist experiences and activities that is internationally-acceptable.

Forty nine per cent (49.1%) of tourists hold technical or professional jobs, 27.5% are in management or administration, retirees' total 4.1%, and students and unemployed fill the remaining job roles. This indicates most wildlife tourists are financially well-placed to afford these time-consuming, at-destination wildlife experiences. It also suggests accommodation, transport, and associated-services should all be of a consistent high quality, and not be aimed at a lowest price solution. Therefore, the promotion of Sabah wildlife destinations should target well-educated, 'experienced' tourists seeking an international holiday of note, and should use information channels such as: WoM, key global tour-guide channels, and the internet (including social media). Further English should be a key language deployed in such promotions.

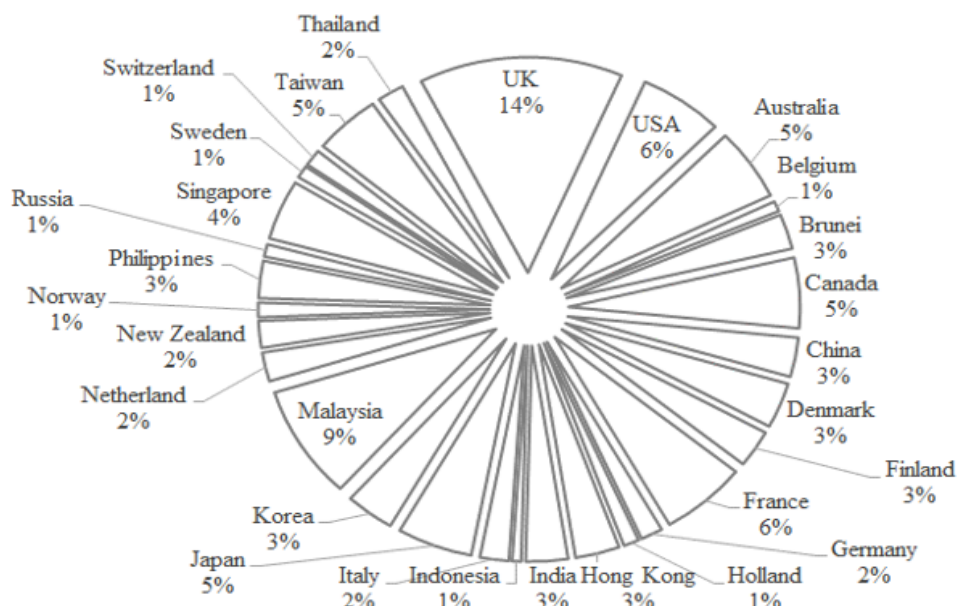


Figure 2: Tourist country-of-residence.

Table 4 summarizes the tourists' prime reasons to visit Sabah. Results suggest wildlife and adventure-based tourism activities are substantive drivers of Sabah tourism, and so should be specially targeted when Sabah tourism improvements are planned.

Table 4: Tourist motives to visit Sabah's wildlife/adventure destinations.

TOURIST MOTIVE ITEMS	MODE	MEAN	STANDARD DEVIATION
To see Sabah's wildlife	5	4.51	0.71
Visit the rainforest/nature parks	5	4.36	0.93
To view endangered species	5	4.30	0.82
Visit the marine park	5	4.26	1.00
Price matched budget	4	3.95	0.90
Adventure activities	5	3.77	1.06
Experience traditional culture	4	3.51	0.96
Rest and relax	4	3.35	1.03
Shopping	2	2.84	1.02
Visit friends/relatives	2	2.37	0.67
Business/conference/meeting	2	2.02	0.64

Table 5 shows most tourists who visited Sabah expected to see wildlife, whilst some (7.1%) also expect to experience traditional culture.

Table 5: Respondents' expectation prior to visiting Sabah, Malaysia.

EXPECTATIONS	FREQUENCY	PERCENTAGE (%)
Endemic species of Sabah	279	43.2%
Abundance of wildlife	135	20.9%
Diversity of wildlife	106	16.4%
Rainforest of Sabah	80	12.4%
Sabah's traditional culture	46	7.1%

Only 1.9% of tourists felt they saw less than they expected whilst visiting Sabah and its wildlife destinations. In contrast 19.2% note Sabah exceeded their expectations. Thus, expectations are generally met during the tourist's stay in Sabah. Tourists most prefer Kinabatangan (18.9%) and Danum Valley Conservation Area (16.6%). These destination offer high wildlife experiences and activities and are considered of high importance to tourists when visiting Sabah through KKIA.

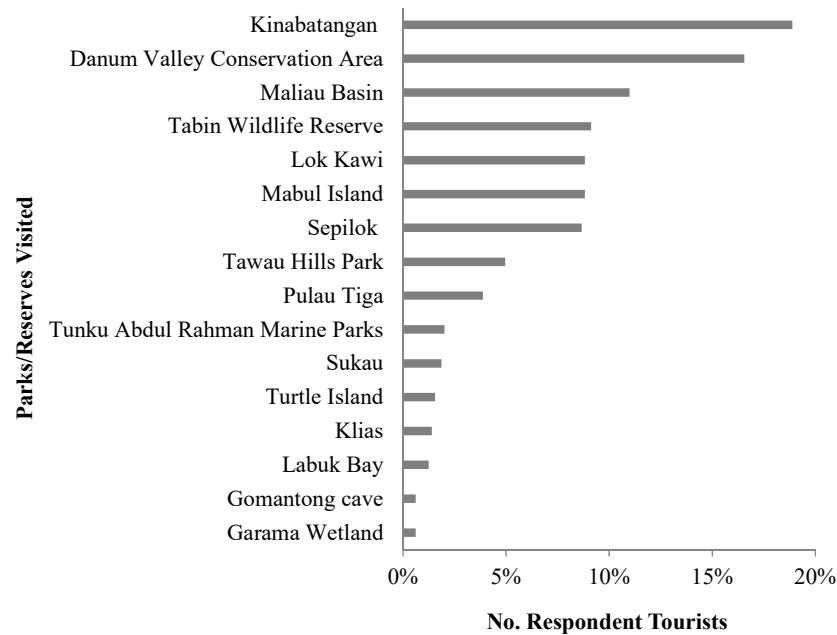


Figure 3: Parks/Reserves/Locations visited by tourists.

Experience Perceptions

Responses from open ended questions are categorized and scaled into Table 6.

Table 6: Perceptions of best (+ve) and worst (-ve) aspects of tourist visits.

POSITIVE EXPERIENCE	RATE	NEGATIVE EXPERIENCE	RATE
Tourist perception (N =646)		Tourist perception (n = 447)	
Preservation/conservation	91.6%	Hardly seen any wildlife	90.2%
Learning	90.3%	Lack of time	78.5%
Scenery	87.8%	Insects/leeches bad encounter	67.3%
Awe and wonder	70.6%	Inexperience guide	66.4%
Organization	46.6%	Weather	45.9%
Relaxation	35.8%	Language	33.1%
Wildlife	31.4%	Tour size	25.5%
Waterfalls	25.1%	Food	15.0%
Challenging	18.3%	Roads	12.5%
Pristine	18.3%		
Safety	18.0%		
Comfortable accommodation	14.9%		
Fun	13.5%		
Rivers	11.6%		

Table 6's top four positive experiences represent a priority tourism promotion target for Sabah's wildlife tourism operators, and the top four negative experiences need resolutions. Tourists clearly want preservation and conservation of these tourism sites (91.6%), scenic realities (87.8%), added learning (90.3%) during their visit, and to capture a sense of wildlife awe/wonder

(70.6%). Those operating Sabah's wildlife tourism destinations should focus on these wildlife experiences as destination areas-for-optimization, and for inclusion in Sabah's wildlife destination marketing. The negatives of Table 6 should also be addressed.

Wildlife Species Preference

The most popular (and iconic) species across Sabah, Malaysia is the orang utans (great ape) (25.9%). Despite the small population (< 40) the Sumatran rhinoceros also rates highly (16.7%) amongst tourists.

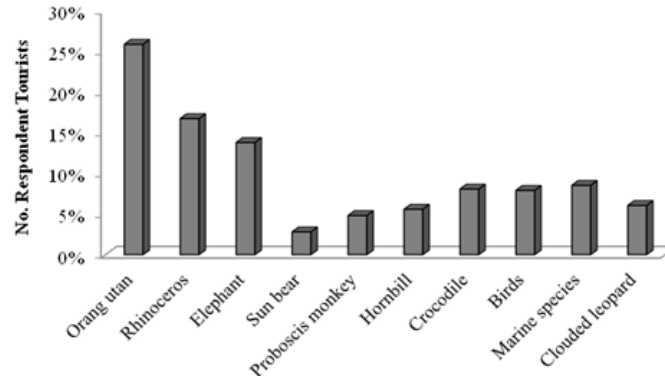


Figure 4: Wildlife species preferences of tourist.

Tourism Experience

Table 7's seven different aspects of wildlife-based tourism experience show viewing Sabah's endemic animals in the wild as a most important experience, followed by seeing a diversity of rare/endangered animal species within Sabah.

Table 7: Respondents' recognition of different 'wilderness' experiences in Sabah.

KEY VIEWING ASPECTS	MODE	MEAN	STD DEV
See animals native to Sabah	5	4.37	0.79
See animals in the wild	5	4.04	1.20
See animals in zoo	4	3.54	0.99
See rare/endangered species	3	3.52	0.88
See many different animals at once	2	3.1	1.08
See animals from across the world	2	2.59	0.69
Learn about animals in museums	2	2.15	0.46

Table 8 shows factor reduction with KMO (sampling adequacy) = 0.731, with no removal of items, and with Bartlett's Test of Sphericity significant ($p = 0.000$). The 'wild' construct captured 42.4% of its variance, whilst the easy-view 'endemic' (zoo) construct captured 51.1% its variance. The items within each construct represent reasonable perspectives for tourist as they consider what is 'wild,' and what is 'endemic.' This suggests tourists do differentiate wildlife.

Table 8: Factor construct loads of tourist animal experiences in Sabah.

ITEM MEASURES	FACTOR 1 (Loading)	FACTOR 2 (loading)
Questionnaire Factor*	Wild	Endemic
Learn about animals in museums	0.75	
See animals native to Sabah	0.73	
See rare or endangered species	0.65	
See animals in the wild	0.42	
See many different animals at once		0.78
See animals in zoo		0.69
See animals from across the world		0.67
Number of items	5	4
Eigenvalue	2.96	1.01
% variance explained	42.3%	14.4%

Tourist Satisfaction

Table 9 shows the very high level of satisfaction of the tourists with wildlife tourism experiences. The Sabah tourist's acquired satisfaction levels are segmented against their perceptions, and against the wildlife service-quality instrument WILSERV. WILSERV engages: (1) reliability, (2) tangibles, (3) responsiveness, (4) assurance, (5) empathy, and (6) wild-tangibles of wildlife destination visitors as its quality constructs (Hendry & Mogindol, 2017).

Table 9: Tourist satisfaction across wildlife tourism experiences in Sabah.

MEASURES	WILSERV-QUAL	SATISFIED	NOT SATISFIED
Vegetation condition	tangible (wildlife)	96.4%	3.6%
Species availability	tangible (wildlife)	95.5%	4.5%
Species diversity	tangible (wildlife)	92.9%	7.1%
Scenery	tangible (wildlife)	95.5%	4.5%
Accommodation condition	tangible (features)	95.5%	4.5%
Information centres	tangible (features)	95.8%	4.2%
Facilities	tangible (features)	95.7%	4.3%
Road condition	reliable (conditions)	96.8%	3.3%
Hospitality	reliable (conditions)	96.3%	3.7%
Convenient business hours	reliable (conditions)	96.4%	3.6%
Sign-posting	empathy (assistance)	95.8%	4.2%
Food	empathy (assistance)	95.5%	4.5%
Safety measures	empathy (assistance)	96.0%	4.0%

In this study, four wildlife WILSERV quality constructs also contribute towards satisfaction. The items providing these four WILSERV quality constructs Table10 'item-parcels' (Hair, et al., 2010) these items, and a multiple regression – is then mapped against these peripheral satisfaction drivers. This regression relationship is shown as Equation 1.

Table 10: WILSERV quality constructs and measures.

WILSERV-QUAL	MEASURES	WILSERV-QUAL	MEASURES
Reliability	Road condition	Tangible - wildlife	Vegetation condition
	Hospitality		Species availability
	Convenient business hours		Species diversity
Empathy	Sign-posting	Tangible - other features	Scenery
	Food		Accommodation condition
	Safety measures		Information centres
			Facilities

Equation 1: Sabah's wildlife service quality relationship

$$\text{Peripheral Satisfaction} = 1.8(\text{Reliability})^* - 1.6(\text{Empathy})^* + .05(\text{Tangible - wildlife})^* + 0.07(\text{Tangible - other})^* \quad (1)$$

(* = significant at $p < 0.05$)

Equation 1 suggests that when Sabah's reliability, tangible (supporting) features, and wildlife-in-habitat are each jointly considered by the tourist, then the tourist's overall satisfaction is raised. However, the peripheral empathetic items of Table 9 do not positively influence satisfaction. This regression approach can likely be improved in future studies as it currently represents a diverse array of loosely-connected, peripheral tourism items,

Leximancer Cluster Studies

The Figure 5 Leximancer cluster of relationship bubbles shows tourists specifically link key wildlife species, such as the orang utans (Sabah's great ape), as an association with other wildlife, animals, monkeys, 'long tongues,' and adventure. Tourists then closely link these wildlife associations with their adventure-based activities/experiences.

Tourists are also sufficiently perceptive to differentiate these above ape-related species from other Sabah wildlife tourism activities that are water or islands based. Thus, tourists do successfully differentiate and group their wildlife experiences, and they do note each type of wildlife tourism is differently focused.

Figure 6 shows strong dangerous and aggressive wildlife, like Sabah's orang utans (great ape), is secondly perceived by tourists to be amazing, fascinating, rare, interesting, colorful, beautiful, animals, and thirdly perceived as intelligent and human-like. Thus, tourists exhibit a staged observation of wildlife tourism in the natural environment. First, they note the danger, then the wildlife features and characteristics, and then they run personal (innate) comparisons.

Tourists do not perceive such key apex-predator wildlife animals as cute, fluffy, and baby-like. Tourists also recognize apex predator wildlife animals as potentially dangerous, and ones not to be disrupted when being observed in their natural wildlife habitat. Thus, tour guides and the destination's workforce can effectively reach tourists by sequentially staging their presentations as: danger-related, then features-related, then characteristics- and differentiation-related, then by dominance behavior- related, followed by innate comparisons to information and species elsewhere, and lastly emphasizing conservation and a strong respect for the wildlife habitat.

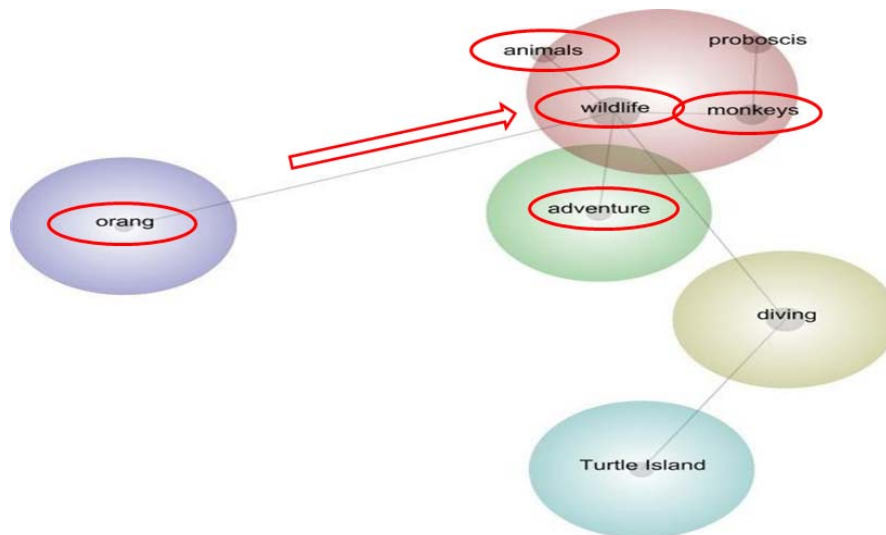


Figure 5: Tourist wildlife and destination relationships (consumption) in Sabah.

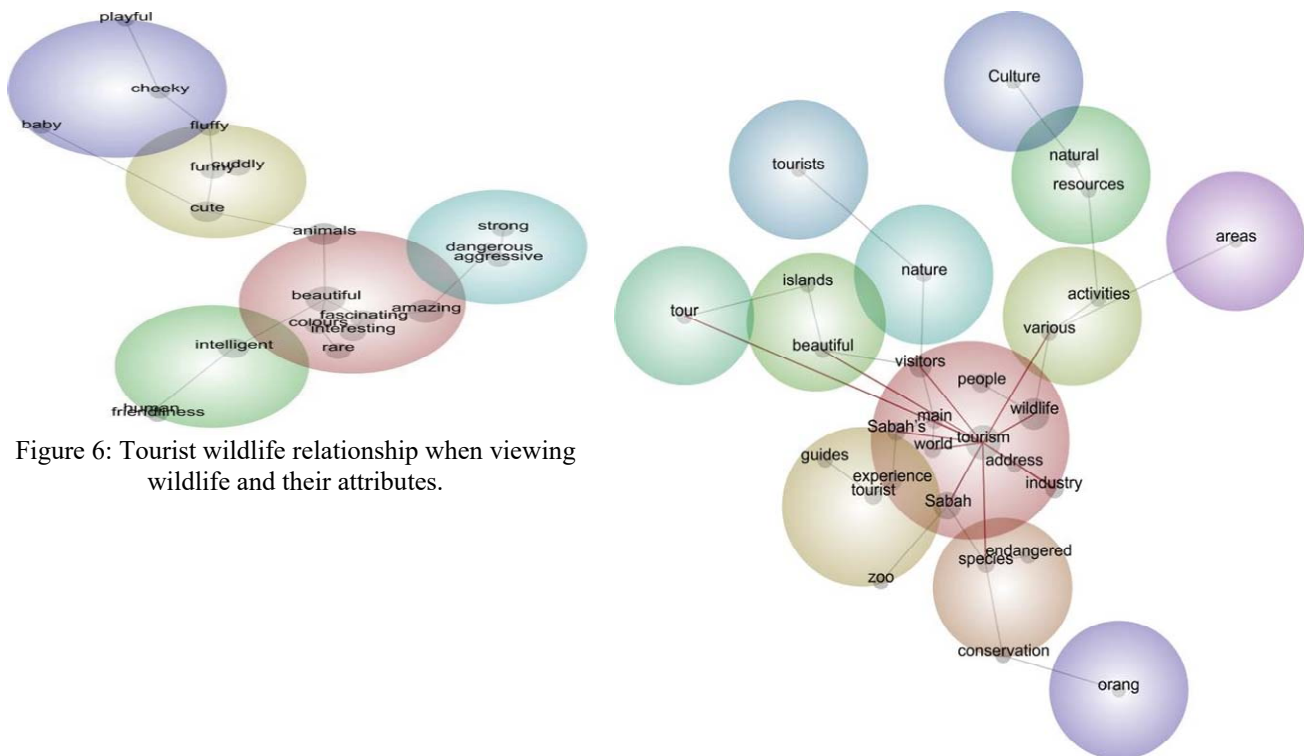


Figure 6: Tourist wildlife relationship when viewing wildlife and their attributes.

Figure 7: Tourist wildlife differentiation perspectives.

Figure 7 shows the qualitative content analysis of 646 open-ended comments shows respondent tourists do perceive relative differences in Sabah's wildlife destinations. They do differentiate cultural and natural resources as area-specific activities. They perceive Sabah's orang utans (great ape) as endangered endemic wildlife and ones to be conserved in their natural habitat. They recognize links between iconic wildlife observed activities, experiences, and endangered wildlife properties. They see visiting a zoo or guided experiences are different to an association with the orang utans. They also recognize this Sabah tourist visit has beauty, nature, controlled experiences, activities that that the orang utans is also an intelligent, fascinating, strong, dangerous, intelligent apex predator. They also note this a unique, wildlife, nature-based experience where natural activities arise – and this differentiates it from other wildlife tourism. Such features can be targeted in Sabah's tourism marketing.

Sabah's tourists hold different tourism expectations, and these vary in line with their selection of a specific type of wildlife tourism. Thus, it remains important for wildlife tourism destinations to promote their unique features through all possible channels – as these drawcards have recognizable appeal to different tourist target markets. Additionally, because service quality appears important for Sabah's tourists, consistent monitoring and ongoing conservation efforts around Sabah's unique wildlife and its embedded habitats remains a tourism 'product motive' for ongoing improvements to all Sabah's tourism-related service quality deliverables.

CONCLUSION

At its biodiversity hotspots, Sabah's tourist animal encounters, and wildlife experiences, do draw tourist involvement and behavioral responses. This study suggests Sabah's tourism informational and operational bodies should consider the travel peripherals (accommodation, food, services, transport, overall cost) as part of the overall wildlife and habitat experience required by wildlife tourists within Sabah.

Wildlife (and adventure-based) tourism activities help drive Sabah's tourism. Many tourists visit nature-reserve wildlife destinations seeking unique experiences and/or related activities. This Sabah wildlife destination study (646 survey) shows respondent outbound tourists passing through KKIA are generally well educated, financially secure, and typically come to Sabah on holiday from their overseas home country.

Tourists generally source information (in English) about Sabah and its wildlife experiences/activities via the internet (and social media), via travel guide books, and via WoM communiques. Hence, Sabah's Wildlife Department, its Tourism Board and Tourism marketing bodies, and its individual wildlife destination management teams should ensure they maintain globally-competitive websites/social media sites offering (1) an English language version, (2) unique adventure aspects, (3) quality holiday services and peripheral perspectives, and (4) international wildlife and habitat conservation appeal.

Leximancer relationship clustering shows tourists link key iconic wildlife - like Sabah's great ape to other endemic and related wildlife. They expand such associations towards adventure-based activities/experiences. Thus, Sabah's Wildlife Department, its Tourism Board and Tourism marketing bodies, and its individual wildlife destination management teams should always present an adventure connotation when presenting their wildlife and habitat deliverables to tourists. Leximancer studies also suggest Sabah's wildlife habitat facilities, and activities, should develop the tourist's expectations by providing staged wildlife-awareness information, and immersive situational experiences.

When Sabah tourists see iconic wildlife - such as its orang utans or rhinoceros, as a wildlife immersion mix (conservation-experience, destination and species education, habitat awe-and-wonder), then an overall tourist satisfaction likely results. They also recognize Sabah's great apes as a dichotomy (strong dangerous/aggressive - yet also amazing, fascinating, rare, interesting, colorful, and beautiful). They observe that these great apes are intelligent and human-like - but unique, special, and unpredictable. Thus, Sabah's wildlife tourism destinations should globally promote their uniqueness features through available physical and virtual communications channels.

Tourists evaluate their wildlife destination support features (accommodation, transport, and servicing) against their internal and international perceptions of quality. These peripheral experiences do affect the outbound tourist satisfaction perceptions of Sabah as a destination experience. Equation 1 suggests Sabah's wildlife tourism destination facilities likely require continual monitoring, and realignment (by Sabah's peak conservation/tourism bodies) - especially if any changes in its tourist satisfaction preferences are detected. This study also concludes Sabah's wildlife and natural habitats deliver experiences and activities that may invoke an enhanced overall satisfaction within the tourist.

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