

**Tourists' Understanding of the Elephant Business in the Tourism Industry:
A Study of International Tourists in Chiang Mai Province, Thailand**

Pannarai Polyapipat

Graduate School of Business
Assumption University, Thailand

Aaron Loh, Ph.D.

Lecturer
Graduate School of Business
Assumption University, Thailand

Abstract

The elephant is the best-known national symbol of Thailand that has been linked to Thai people for centuries. However the number of elephants is declining very rapidly in the past 25 years and it is possible that the elephant could become extinct in Thailand within 10 years. As the majority of domesticated elephants are in the tourism business, then to study how tourism affects the elephant's welfare is significant for the elephant itself, business owners and tourists. Consequently, the purpose of this research is to investigate tourists' understanding to help in assisting business owners to operate more ethically. The survey was conducted among 382 international tourists who had visited elephant-based attractions in Chiang Mai, Thailand. The respondents were foreigners with diverse educational backgrounds and income levels. The questionnaire used for the survey was based on a critical literature review, the research objectives and the hypotheses. The data collection period was from October – December 2014. The statistical analyses revealed that the trend of using animals in tourism or for entertainment has become more ethical recently. The majority of tourists participated in abusive-free activities such as observing elephants, bathing and feeding elephants, and photographing elephants. Tourists understand the ethical implications of elephant-based attractions and the expected conditions for the ethical operation of elephant-based attractions. For example, elephant-based attractions are not places where visitors should see animals entertaining them, or where elephants were abused during training.

Keywords: elephant, tourism, animal ethics

Introduction

Tourism is important to the economy of many countries since it has created employment in different sectors such as hotels and other tourism accommodations, restaurants and cafes. It has also contributed to the gross domestic product through expenditure by domestic tourists.

Sustainable tourism development is considered to be a key strategy, in terms of business aspects, and is included in many action plans and policy frameworks related to the tourism

development of a country. Many countries in Asia consider tourism to be a crucial factor for social economic development. The tourism industry has the ability to earn foreign currency, create jobs, support development in other parts of the country, decrease income and employment gaps throughout regions, and strengthen economic connections among many sectors in the national economy. In general, the term sustainable tourism refers to the environment, economic and socio-cultural aspects of tourism development and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability. Furthermore, sustainable tourism should benefit all tourism stakeholders and also maintain a high level of tourism satisfaction. Other terms relating to sustainable tourism are “ecotourism” (Uriely, Reichel & Shani, 2007), “responsible tourism” (Reid, 2003), “alternative tourism” (Eadington & Smith, 1992), “community-based tourism” (Jones, 2005), “pro-poor tourism” (Bowden, 2005), and “poverty alleviation tourism” (Harrison & Schipani, 2007). These terms are only a part of sustainable tourism but cannot be used to define an exact meaning of sustainable tourism. However, this point of view of the tourism industry does not explain a perfect picture of how much its potential can contribute for developing countries.

Table 1
Number of Elephant Camps and Elephants in Thailand

Province	Number of elephant camps	Number of elephants	Province	Number of elephant camps	Number of elephants
Chiang Mai	31	507	Lampang	2	105
Kanchanaburi	11	196	Phitsanulok	1	9
Nakhon-Prothom	2	34	Sukhothai	1	12
Ratchaburi	1	18	Phuket	22	207
Prachuap Khiri Khan	5	43	Phang Nga	19	157
Bangkok	3	21	Krabi	10	63
Pathum-Thani	2	5	Surat Thani	9	86
Samut Prakan	1	6	Surin	2	186
Ayutthaya	2	84	Nakhon-Ratchasima	3	11
Chiang Rai	2	60	Chonburi	14	276

Mae Hong Son	6	24	Trat	6	51
Total number of elephants					4,287
Number of elephants in elephant camp					2,161
Number of elephants in other category					2,126

Source: Department of Livestock Development. (2012). Statistic of Elephant in Thailand on 9 July 2012.

One of the tourists' biggest interests in Thailand is to see an elephant. The elephant has played an important role in Thai history, tradition, culture, economics and tourism in the past, and became the animal icon of Thailand. Most foreign tourists in Thailand would like to see or interact with elephants and this has caused elephant tourism to grow rapidly because most elephant camp visitors are international tourists (Kontogeorgopoulos, 2009). Rodger, Moore, & Newsome (2007) stated that wildlife tourism is one of the fastest growing sectors worldwide and Stone, Tucker, and Dorman (2007) showed that itineraries that offer interaction with animals can influence package selection.

The number of elephants is decreasing very rapidly and possibly within 10 years elephants could be extinct in Thailand. Forty years ago, Thailand had 11,000 elephants (Wallmark, 2008), but there were only 4,287 elephants left in Thailand in 2012. 2,161 elephants are domesticated in elephant camps and 2,126 elephants are privately owned and wild elephants (Department of Livestock Development, 2012). As the majority of domesticated elephants are in the tourism business, to know how tourism affects elephant's welfare is very significant for both the elephant itself and businesses.

In Thailand, elephants in tourism have been presented as a kind and smart animal. They are able to do many things like humans can; more than other animals, such as playing football, riding bicycles, painting, playing musical instruments, dancing, show performing, tricks and much more. Many tourists often dream of riding on an elephant and getting pictures taken with them once in a life time. However, according to natural elephant behavior, elephants would

never stand on 2 legs in the jungle. They do it only if they cannot reach delicious fruit on a tall tree, elephants in the wild are not artistic with painting or playing music, elephants would not form a football team by chasing a coconut instead of ball; but only play with mud and water. These facts are contrasted with how elephants have been presented to tourists under the shadow of tourism. Most elephants, unfortunately, are forced to perform to entertain tourists.

Moreover, the Thai Elephant is in danger of extinction, hence elephant conservation has become a national issue. Both government and non-profit organizations have supported elephant conservation. Research on how to care for elephants and how to help with conserving elephants has been conducted. But still, many elephants in the tourism industry are still living in poor conditions.

Despite the growing concerns and attention on animal rights issues here, there was little effort being made towards exploring the ethical aspects of using animals for entertainment, particularly in tourism literature. Although the use of animals in the tourism industry has come under growing scrutiny, especially on the part of scholars and animal rights activists, little is known about the understanding of tourists themselves and of the public at large towards elephants. Despite certain contributions to the knowledge on peoples' attitudes and perceptions towards using animals in entertainment (e.g., Curtin, 2006; Curtin & Wilkes, 2007; Klenosky & Saunders, 2007; Mason, 2007; Rhoads & Goldsworthy, 1979), these studies are based mostly on specific case studies and anecdotes, and do not offer a holistic view of tourists' attitudes or the major influencing factors. Their ethical approach to the issue remains, therefore, ambiguous and speculative.

Animal-based attractions heavily depend on paying visitors to offset their operating costs as well to finance the education and conservation programs (e.g., Catibog-Sinha, 2008; Mason, 2007). Hence, Shani and Pizam (2009) has found that public opinion as a driving force

for ethical operation of animal-based attractions is more strongly associated with tourists' attitudes toward the sites than belief in the legal system and institutional supervision.

Empirical evidence of tourist understanding of elephants in tourism would be a great necessity for marketing and operational decisions of elephant-based attractions. Moreover, a better understanding of tourists' attitudes toward such attractions also can be used by animal rights organizations to design effective campaigns aimed at increasing public awareness of their messages.

Thai Elephant Situation in Present

Number of Asian elephants (*Elephas maximus*) has been declining dramatically over the past century. Since 1986, the International Union for Conservation of Nature (IUCN) classified Asian elephants as an endangered species on the Red List of Threatened Animals (IUCN, 2008). The World Wide Fund for Nature (WWF) estimated that there were only 25,600 to 32,750 Asian elephants remaining in the wild and 15,000 elephants in captivity (WWF, 2008). The history of elephants in Thailand affected the general decline of Asian elephant. The number of elephants in Thailand has been declining continuously from approximately 100,000 elephants in 1900 to roughly 4,450 in 2008 (Snow, 2008). Of these 4,450 elephants, approximately 1,000 elephants are wild and the majority of wild elephants are in the Khao Yai National Park and the Thungyai Huai Kha Khaeng wildlife Sanctuaries, 3,450 are domesticated.

People for the Ethical Treatment of Animals Organization (PETA, 2006) stated that animals that live in the circus travel over thousands miles among 48 to 50 weeks every year. There are problems in six areas: regulatory context, injuries, nutrition, social environment, training, and the declining quality of mahouts.

At a broader level, the lack of practical laws, including the treatment of domesticated animals, which give limitation regarding the ability of the involved parties to prevent elephants from abusive and neglect. Unlike elephants that live in the wild that are fully protected under the Wildlife Reservation and Protection Act of 1992, domesticated elephants fall under the Draught Animal Act of 1939 which classifies domesticated elephants as draft animals along with mules, horses, donkeys, cows and water buffalo (Phuangkum, Lair, & Angkawanith, 2005). The Draught Animal Act only defines the rights and ownership requirements, domesticated elephants are allowed to be treated as private property with no particular provisions for animal welfare or protection under the Draught Animal Act (Lair, 1997).

Animal welfare could be defined as an animal's state of psychological well-being or how it feels (Veasey, 2006). Besides general injuries that happen to most elephants, for example, cuts and bruises caused by trees or rocks, elephants that live in camps also suffer from tourism activities such as giving rides to tourists from the howdah (bench on their backs) used for carrying tourists (normally two at a time) which causes abrasions along the back from the bench shifting, and across the chest from the chafing of the strap needed to support the howdah (Khawnual & Clarke, 2002). Giving rides also increases fecal glucocorticoid metabolites (FGM) which is a key measure of stress response, to reduce the stress level elephants should interact with another elephant immediately following rides (Millspaugh, Burke, Slotow, Washburn, & Woods, 2007). Elephants are able to carry a maximum of 300 kilograms, it is recommended that they carry no more than 200 kilograms. When elephants carry heavier objects, the task can create greater exhaustion and potential injuries due to chafing and shifting. Besides injuries caused by the howdah, the forceful or inappropriate use of the mahout's hook (ankus) can also cause puncture wounds.

Table 2
Standard of Elephant's Welfare

	Standard of elephant's welfare
Food	Each elephant must consume food 10% of its body weight each day.
Water	Each elephant must drink water 10% of its body weight each day.
Bath	The elephants should have a proper bath at least twice each day meaning the mahouts have to scrub the elephants' entire body.
Work	The elephants should work not more than 6 – 7 hours per day and should have time to rest, eat and drink during work.
Stable	The stable should be clean and provide shade.
Trail	The trail should not be risky to the elephants
Vaccine	The elephants should get a vaccine for Hemorrhagic Septicemia once a year.
Deworm	The elephants should be dewormed at least twice per year.

Source:

Sutthisaranand, M. (2001). *A study of elephant welfare in the tourism business: A case of the tourism business in Pattaya, Chonburi province*. Master Thesis, Mahidol University, Bangkok, Thailand.

To provide enough nutrition to all domesticated elephants as required is a difficult task because of the quantity and quality of the food. Elephants consume approximately 10 percent of its body weight (100 to 200 kilograms) per day (Wallmark, 2008; Fuller, 2008). As much time elephants spend on eating, sources of food are limited for the working elephants, and it leaves owners no other choice rather to purchase a large quantity of food in which the quality of food is also important. The food for elephant's diet consists of grasses, leaves, twigs, bark fruits, and vegetables. Phuangkum et al. (2005) pointed out the quality of food in some elephant camps is insufficient and lacks variety, lacks nutritional balance, is the incorrect proportion of staple foods (such as grasses) to supplements (such as fruits), and contains dangers from toxic chemicals such as pesticides, fertilizers, or insecticides.

Every time an elephant spends on giving rides or performing in front of tourists, it means less time spent on eating which usually takes up to 18 hours a day. The tradeoff exists where tourists come, bringing profits to the owners, but there should then be better food for the elephants, in theory. At the same time for elephants, it means more hours working, and

therefore less time spent on eating. Fortunately, elephants in Chiang Mai live in the right geography. The forested settings of elephant camps in northern Thailand provide opportunities for elephants to graze on natural food, which is not only free but also safe from chemical residue associated with cultivation.

The social environment of elephants in the camp is not naturally formed through a matriarchal family but instead by elephants gathered from different parts of the country, brought up together in particular camp. Furthermore, the renting system in elephant camps interrupts social bonding among the elephants. Not all elephants in the camp owned by the camp owner. Some elephants were rented from its mahout or private owner. The elephants could be rented seasonally and get rotated to other camp in different season. Elephant camps in Chiang Mai area pay 5,000 - 7,000 baht per month on average to rent an elephant. The boundaries of the elephant camps are also unnatural and sometimes signs of stress occur when shelters are not constructed with enough space and good flow of ventilation. In an attempt to improve and standardize the conditions of elephant camps, the Livestock Department in 2002 created a set of standards that provide guidelines on issues regarding camp's location, layout, elephant's shelter, personnel management, food, safety, hygiene, and waste management (Department of Livestock Development, 2002). According to a few informants, camp owners started to accept the ideas but later resisted because of higher costs involved in implementing the standards in addition to the intrusive level from government intervention. There is a lack of will or ability among government officials to enforce their proposed guidelines, and only a few have been implemented to enhance the conditions to meet a minimal level of standards.

Elephants require a lot of time for training to be able to follow the commands and elephants in the tourism industry need to be particularly skillful, undergoing time-consuming training because of their interactions with tourists, they need to be secure and predictable as

much as possible. The method called *Phajaan* in Thai means to break or crush a calf at age 3 or 4 years old by separating it from its mother and confining it for several days with ropes in a small wooden cage and be starved, stabbed, poked, hit, burned or cut by several men until it surrenders (Hile, 2002; King, 2005). The use of *Phajaan* within elephant tourism in Thailand has been criticized by animal rights activists particularly on international view. For example, after a video of *Phajaan* ceremony in 2002 was uploaded on the internet, the People for the Ethical Treatment of Animals (PETA) called for a total boycott of tourism to Thailand until prohibiting the use of elephants for entertainment or commercial proposes was made into law by the Thai government.

Another issue regards the quality of mahouts in Thailand, which has been seen as decreasing and compounding many problems, which were mentioned earlier. “A concern repeatedly conveyed to the author during interviews with camp owners and managers was high turnover among mahouts. Mahout was once seen as a noble profession but now associated with low level of status and self-esteem” (Lair, 1997). Economics is the reason for the high turnover of mahouts. The majority of mahouts in Thailand are poor young men who possess neither the extensive experience nor the lifelong interest in elephants common to mahouts in the past. Mahouts will abandon their elephants if they could get a better paying job since there was never a deep attachment or commitment in the first place. High turnover is also a problem that affects camp operation, since it requires intensive training, and also causes negative effects to the elephants, as mahouts with inadequate skills and experience must use rough methods to control an elephant that does not have a long time to bond with a mahout. Mahouts who have poor familiarity with an elephant are frequently unable to determine when things are wrong with an elephant's character or health. This lack of familiarity between mahout and elephant, and the

lack of determining that it is dangerous, leads to several mahout deaths each year in Thailand, including occasionally, those at one of the Chiang Mai camps.

How Tourism Can Help Domesticated Elephants

Elephants in Thailand would be worse off without tourism. Elephants, as a part of tourism, are more useful than in the logging business, which was banned in 1989 (Emmons, 2007; Wallmark, 2008). In November 1988, a tropical storm caused massive flooding and mudslides in southern Thailand, leading to approximately 300 deaths, 2,000 injuries, 400,000 destroyed homes and \$100 million worth of property damage (UNDHA, 1988). The disaster largely caused the effects of deforestation. In January 1989, logging businesses within the borders were banned in Thailand, which caused approximately 3,000 elephants and their owners to lose their jobs. Thus, elephant prices dropped as owners tried to sell them off.

Logging does not present the perfect circumstance for elephants as compared to the illegal logging that happened after 1989, but elephants that worked in the traditional logging industry were better off. They lived and worked as they did in forested environments with natural food, decent care and centralized management associated with state ownership of elephants (Lair, 1997). Most elephants working in logging industry before 1989 were owned by the Forest Industry Office and state-owned enterprise.

When the economic value and utility of elephants were at their lowest, fortunately Thailand's tourism was in the incremental period of international tourist arrivals between 1984 and 1989. The number of tourists visiting Thailand has been doubled from 2.3 million to 4.8 million (TAT, 1998). In the five years following the logging ban in 1989, tourist arrivals grew by another 28 percent. In the city of Chiang Mai specifically, international tourist arrivals experienced similarly rapid growth in the 1990, going from 427,000 in 1991 to 941,000 in 1998

(TAT, 1991; TAT, 1998). For elephants unemployed by the logging ban, this growth of tourism in northern Thailand maintained around 75 percent of all domesticated elephants in Thailand, where elephants with little economic value were brought together for international tourists to experience creatures considered majestic and encountered rarity from a certain distance in tourist's home countries.

Information was collected through observation, interview and informal conversation of researchers with stakeholders such as elephant camp managers, elephant owners, and tourists. Thai scholars and tourism officials clearly stated that tourism has played an important role for animal welfare in various ways. Most importantly, it creates a demand for domesticated elephants and this leads to better care and protection than would be the case were the value of elephants to plummet again, as they did immediately after the logging ban. Regardless of their religious and culture significance in Thai history, the fortune of elephants today is tied first and foremost to market forces. Due to their legal status as draft animals, domesticated elephants are considered as private property and therefore are only valued if they can create a financial income for their owners. In a Thai animal rights context that favors the utilitarian values of animals over their intrinsic worth as living creatures (Gershon, 2006), it is therefore in the welfare of elephants necessary to retain their high financial value.

The individual welfare of an elephant hugely depends on financial success of the business. Without generating revenue from thousands of tourists who visit Chiang Mai's elephant camps each year, the elephant's healthcare would suffer higher costs. Kelly (1997) suggested that a proportion of income generated by the elephant should be invested in research and conservation. From the interviews, all camp owners and managers admitted that elephants are no longer needed during low season and often end up wandering urban streets. For owners and mahouts of elephants, more income could help provide for better veterinary care, more quantity

of food, and a greater variety of food sources. Elephant camps in the Chiang Mai area pay 5,000-7,000 baht per month on average to rent an elephant; this income, generated by tourism, is valuable in the absence of other viable alternatives for elephants to earn profits for their owners. In case where mahouts are employed to handle elephants that are owned by others (including the camps themselves) roughly half of the mahouts are working in the camps surveyed do not own their elephant. Tourism generates a source of income, especially given to mahouts who are poor, uneducated, and socially disregarded. In addition to earning 3,000 to 5,000 baht in a month, mahouts working in Chiang Mai elephant camps reported in informal conversations with this author, that they are also able to earn between 200 to 1,000 baht per day in tips from tourists. While this extra income is not needed to be spent on elephants by mahouts because they only work in camps where elephants are owned by the camp owner or others, increased mahout income would benefit elephants because they do not have to seek extra employment outside the camp. This means that more time can be spent on taking care of the elephants, such as bathing, feeding, and becoming familiar with their elephants.

Elephant camps are run in specific locations which are visible and accessible. According to interviews with animal rights activists, it is easier for veterinarians to take care of the elephants compared to elephants that are still used in illegal logging. Elephants in camps are in the public eyes, therefore it is easier to have them be taken care of by veterinarians or government officials. This helps explain how measuring working elephant's health and welfare in several locations throughout Thailand, Chatkupt, Sollod, & Sarabol, (1999) found that elephants in 'permanent' rather than 'seasonal' tourist camps in Chiang Mai demonstrated the greatest signs of health, as indicated by alertness, responsiveness, frequency of ear, tail, and trunk motion, and body condition. As important as their public visibility to veterinarians and government officials, elephants in camps remain in the daily sights of foreign tourists who are

not shy about expressing their opinions. In 1993, almost 400 foreign tourists lodged complaints to the Tourism Authority of Thailand about the treatment of elephants (Lair, 1997). Official staff members of the Tourism Authority of Thailand (TAT) in Chiang Mai reported that the TAT receives about two letters per month complaining about elephant welfare, and daily receives oral complaints at TAT office.

One of the downsides of Thailand's domesticated elephants working in the tourism industry is street wandering, which is often called 'begging' in media. Looking at an enormous creature wandering along tourist spots has both sparked wonderment and also grief among foreign visitors which leads to the profusion of stories in the international press (Chadwick, 2005; Fuller, 2008; Levett, 2006; Snow, 2008). Street-wandering elephants walk on the streets, mostly at night time when the concrete is not riskily hot for their feet, while mahouts earn money by selling food to observers who wish to feed the elephants. To many Thais, the site of the majestic and historically revered elephant wandering the streets for food with its mahout on urban streets is embarrassing, and local officials have tried several times to prohibit elephants from Bangkok (Pimmanrojnagool & Wanghongsa, 2002). Yet, some elephants are part of a nationwide organization that leases elephants, especially calves, for the purpose of street wandering, many elephants in Bangkok and other cities are there only to generate economic income for their mahout-owners or because of the lack of appropriate natural resources in regions such as northeastern Thailand (Isaan). Therefore tourism offers elephants an alternative to the degradation found in urban life, besides the economic incentive in bringing elephants to cities would definitely decrease the numbers of elephant camps. Bentrupperbaumer (2005) and Kontogeorgopoulos (2009) state that wildlife tourism is a tool to conserve an animal species.

Methodology

Descriptive research was used in this study to obtain information of tourist's characteristics, background, experience, understanding and opinions which demonstrate the difference between variables. The questionnaire was used to gather information for qualitative research by addressing independent variables in term of ordinal and nominal measurement, and dependent variables in term of interval measurement.

From the researcher's observation at many elephant-based attractions in Chiang Mai, she found that over 90% of visitors are international tourists. Basically, the core target groups of this study are international tourists who have visited elephant-based attractions in Chiang Mai, so the respondents in this case are foreigners, both male and female, with all academic backgrounds, and all rates of income. The reasons why gender, educational background and earning rate are not specified is because this research intends to collect data from various types of people so that we can observed an overview of tourists' understandings of elephant-based attractions.

In order to obtain the precise data for the most accurate interpretation, the amount of the population sampled should be large enough. Data were collected from four hundred respondents with the combination of gender, age, educational background and rate of income according to Yamane (1973).

The survey web link was sent to prospective respondents, and messages to TripAdvisor members and social networks, especially Facebook, was used as a channel of distribution for data collection. After clicking on the web link, respondents were taken directly to the survey. In the introduction page of the survey, prospective respondents were notified about the purpose of the questionnaire, and also the right to deny participating, to allow them to clearly understand

the voluntary nature of the survey. The data was collected anonymously and confidentially. Moreover, it was declared as well that the collectors would not know whether or not participants decided to participate or not in taking the survey. During this stage, ethical issues were of high concern. Therefore, all prospective participants did not need to be worried about refusing to take the survey.

The questionnaire was developed on Google Docs, which is an online survey server that is widely known and easy to develop and answer. The primary data were gathered from 30th October 2014 to 10th December 2014, 42 days in total, and the amount of responses received was 400.

Results

After gathering the data from respondents finished questionnaires, the total amount of responses received was 400. Eighteen questionnaires were found to be unusable and excluded from this study. Therefore the samples of 382 questionnaires left are suitable for statistical analyses. The analysis for the hypothesis testing and all information from the questionnaires were separated. Data were collected to categorize demographic profiles and investigate tourists understanding toward elephant business in tourism industry.

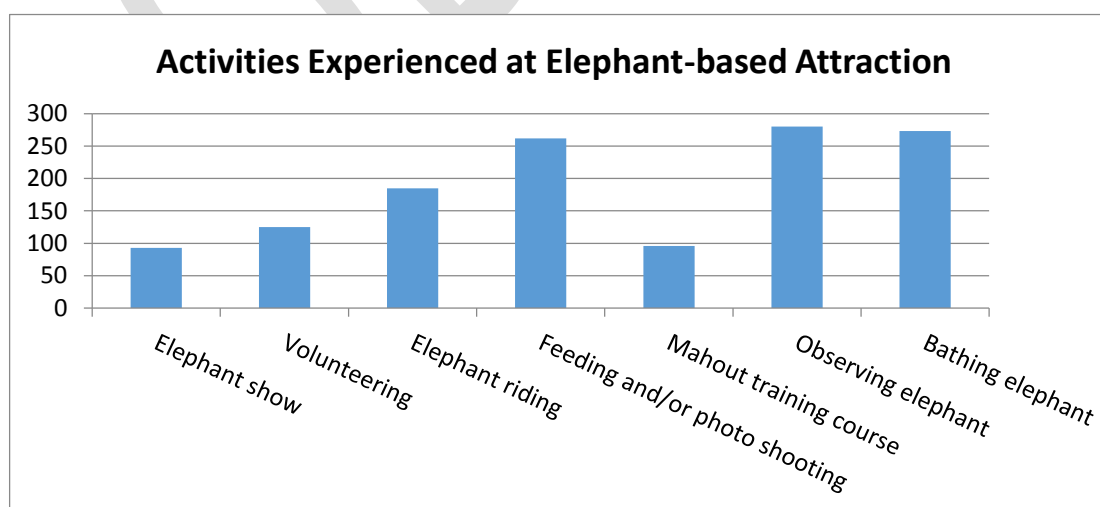


Figure 1: Activities Experienced at Elephant-based Attraction

Details gathered by the researcher as part of this study

Descriptive analysis shows that the majority of respondents are aged between 30- 60 years old (59.9%). Their education mostly was from Master Degree or higher (42.4%). Their ethnic group was mostly Caucasian/White (86.9%).

Respondents visited elephant-based attractions in the past five years 1-2 times (75.7%). Observing elephants, bathing elephants and feeding and/or photographing are the most responsive activities that they have done at elephant-based attractions (73.3%, 71.5% and 68.6%) respectively. The last time that they visited an elephant-based attraction in Chiang Mai mostly is less than one year (63.1%). Most respondents very likely intend to revisit elephant-based attractions in the future (34.6%) and most respondents would also recommend elephant-based attraction to people they know (73.6%).

Table 3

Pearson's Product-Moment Correlation Coefficient for Hypothesis "Ethical understanding of elephant-based attractions is related to understanding of conditions for the ethical operation of elephant-based attractions of respondents"

Ethical understanding of elephant-based attractions	Understanding of conditions for the ethical operation of elephant-based attraction		
	Pearson's Correlation Coefficient (<i>r</i>)	Sig. (2-tailed)	Strength of Correlation
1. Elephant-based attractions are places where visitors can see animals entertaining them.	.052	.309*	Negligible relationship
2. Elephant-based attractions are important places for adults to share something with children.	.387**	.000	Moderate positive relationship
3. Elephant-based attractions play an important role in preserving endangered species.	.567**	.000	Strong positive relationship
4. Elephant-based attractions are important sites to learn about animals.	.550**	.000	Strong positive relationship
5. Conducting research in elephant-based attractions is sometimes the only way we can learn about elephants.	.354**	.000	Moderate positive relationship

6. Without elephant-based attractions many people would not have the opportunity to see elephants.	.469**	.000	Strong positive relationship
7. Elephant-based attractions provide a safe and secure environment for elephants.	.661**	.000	Strong positive relationship
8. Keeping animals in attractions is an important way to regulate and supervise the natural environment for wildlife.	.539**	.000	Strong positive relationship
9. Today there is much more governmental control over the way elephants are treated in attractions	.554**	.000	Strong positive relationship
10. Elephants are not abused during training.	.332**	.000	Moderate positive relationship
11. Elephant shows and exhibits do not constitute any risk for the audience, staff and performers.	.235**	.000	Weak positive relationship
12. Most visitors display respectful behavior toward the elephants.	.278**	.000	Weak positive relationship
Overall	.672**	.000	Strong positive relationship

** Correlation is significant at the 0.01 level (2-tailed)), *Correlation is significant at the 0.05 level (2-tailed).

From table 3, the correlation analysis between respondent's ethical understanding of elephant-based attractions and all items of respondent's understanding of conditions for the ethical operation of elephant-based attraction shows that respondent's ethical understanding of elephant-based attractions are strong positively correlated with the correlation of 0.672. Overall significance level is 0.000 which is lower than 0.05. These items reject H_0 and accept H_a , ethical understanding of elephant-based attractions is related to understanding of conditions for the ethical operation of elephant-based attractions of respondents. All items of respondent's understanding of conditions for the ethical operation of elephant-based attraction are significantly at 0.1 and 0.05 levels.

Conclusion

Overall, it is revealed that the majority of international tourists in Chiang Mai who visited elephant-based attractions within the past 5 years were adult Caucasian/White between 30 – 60

years old who achieved a high education level of Master Degree or higher. The higher a person's level of education, the more they are likely to understand and have concern and affection for elephants in the tourism industry.

In less than 1 year, the majority of respondents have visited elephant-based attractions only 1-2 times. Most participate in elephant-friendly (abusive free) activities such as observing elephants, bathing elephants and feeding and/or photographing elephants which involves education and conservation, and elephants are not required to be trained to perform or entertain the visitors. Respondents were satisfied with the operation of those elephant-based attractions, the elephant's welfare and activities that would not cause any affliction to the elephants both physically and mentally. An estimated 34.6% intend to revisit and recommend people they know to visit elephant-based attraction.

The findings reveal that ethical understanding of elephant-based attractions is strongly positively related to the understanding of conditions for the ethical operation of elephant-based attractions. Consequently, this significant relationship confirms the McPhee et al (1998) study that zoo visitors recognized the importance for the animal's well-being. Moreover, respondents understand the situation of elephants being endangered in Thailand, how elephants in attractions should be treated ethically and according to animal protection laws in Thailand. When they visit elephant-based attractions, they understand the ethical operation of elephant-based attraction and would support the sites that operate more ethically.

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