

Animal ethics and tourism:

Deepening a stimulus–organism–response (S-O-R) framework

Abstract

Animal ethics has been recognized as an emerging issue in tourism, but limited research has concentrated on tourists' behaviors toward animal ethics and its fundamental mechanisms. This study develops a research framework to address this gap, including media coverage and organizational strategies on reducing animal abuse, cognitive and affective states toward animal ethics, norm activation model variables, and behavioral intentions using stimulus–organism–response (S-O-R) theory. Findings indicate that media coverage and organizational strategies can be construed as underlying external stimulus constructs within the S-O-R model in the background of animal-related tourism. This study additionally shows the mediating nature of cognitive and affective states. Findings particularly indicate that personal norm is the focal influencing factor of tourists' behavioral/word-of-mouth intentions toward animal ethics. This research contributes to reducing animal abuse and understanding the underlying theoretical mechanism linked to tourist behaviors and animal ethics.

Keywords: Animal ethics, norm activation model, stimulus–organism–response theory, tourist behavior

1. Introduction

The tourism sector is proficient in developing and tailoring products/activities that tourists purchase. It is typically involved with the development of *must-see* attractions and the promotion of *must-attend* events/activities to draw tourists to the destinations (Winter, 2020). In many destinations, animal attractions, such as aquariums and zoos, are often integrated into *must-see* attractions, adding to their appeal and overall tourist experience (Bertella et al., 2019). Among the tourism commodities that are newly developed for tourists, the creation of tourists' experiential values is centered on intimate encounters with wildlife and marine wildlife, and captive or domesticated animals increase in popularity with varying degrees of tourist–animal interactions (Blaer, 2022). Animals have undoubtedly become one important aspect of tourism, and they are the key focus of particular holiday styles, such as safari tourism, hunting tourism, and farm tourism (Mason, 2015; Fennell, 2022a). However, these forms of holidays raise critical ethical concerns, especially in terms of animal rights, welfare, and suffering (Fennell, 2012a; 2013; Fennell & Thomsen, 2021), and how tourism stakeholders should morally consider the well-being of animals and define the appropriate use of animals for tourist amusement (Duffy & Moore, 2011). Tourist satisfaction can sustain businesses and lead to favorable social welfare and livelihoods for the local communities, given that tourism operators cannot simply overlook the demands of tourists (Semeniuk et al., 2010). Thus, enhancing animal ethics, particularly in the practical aspects of ethics, such as animal welfare and rights among the stakeholders, is becoming an essential consideration to achieve the fitness of animal-based tourism development. They are shaping the ways that tourists should act, feel, and think about animals when taking holidays.

Tourism research has lately experienced a surge with building schools of ethical thought for animal-based tourism (Bertella et al., 2019; Fennell, 2012b; Nowaczek, 2013; Yudina & Fennell, 2013), developing essential guidelines for animal ethics (Fennell, 2012a;

2014; 2013a; 2022b), identifying the positive and negative effects of animal-based tourism (Moorhouse et al., 2015; William & Wright, 2018), and modeling the dimensions of an *animal gaze*, which is partly managerial and partly theoretically motivated (Winter, 2020). Scholars have intermittently sought to explore the issues on animal photography (von Essen et al., 2020; Fennell & Panah, 2020), public sector regulation and policy (Sheppard & Fennell, 2019), and the utilization of animals as food (Yudina & Fennell, 2013). Blaer (2022) and Fennell (2013a) recognized the impacts of media exposure from online or traditional channels and strategies of tourism organizations on reducing animal abuse in two studies that focused on animal welfare and rights as essential considerations to heighten tourist awareness for animal welfare. Furthermore, the tourism industry is taking steps to promote animal welfare and ethical tourism, with some holiday giants, such as Thomas Cook, Virgin Holidays, and British Airways Holidays, encouraging tourists to choose activities that do not involve animal exploitation and avoid amusement parks that offer animal performances (Fluckiger, 2019). These actions indicate a move toward enhancing animal ethics in tourism.

The present study uses stimuli–organism–response (S-O-R) theory to offer deeper theoretical and managerial insights into enhancing animal ethics in tourism (Mehrabian & Russell, 1974). The S-O-R model has been utilized in many disciplines as a fundamental ground to conduct research (Bitner, 1992; Vieira, 2013; Goi et al., 2018). In hospitality and tourism, the scholars adopted the S-O-R framework to examine tourist psychological responses and behaviors (Chen et al., 2021; Fakfare & Wattanacharoensil, 2023; Wu & Lai, 2021). The potential tourists' behaviors that are investigated in this research are based on an S-O-R framework that consists of stimuli, which include media coverage and organizational strategies to reduce animal abuse; processes, which include cognitive and affective states animal ethics; and outputs, which include behavioral intentions and word-of-mouth toward animal ethics. Media coverage and organizational strategies are considered important stimuli to reduce animal

abuse in the tourism industry, given that both approaches are essential for the development of moral intuition among travelers and encouraging responsible behavior when participating in animal tourism (Blaer, 2022; Fennel, 2013a). While media coverage can help shape public attitudes and social norms regarding animal ethics, which in turn can influence individual beliefs and behavior, organizational strategies can help promote more responsible and ethical practices by establishing industry-wide standards for animal care. Arguably, these approaches/strategies contribute to the development of a culture of responsibility among industry stakeholders and travelers, which can influence cognitive and affective states related to animal ethics (von Essen et al., 2020). The organism's internal evaluation process in this research also stems from the key constructs of a norm activation model (NAM). In NAM theory, problem awareness, ascribed responsibility, and personal norm are three underlying antecedents that can predict prosocial intentions/behaviors (Steg & De Groot, 2010). Human beings are organisms that elicit attitudes, emotions, and psychological fundamentals that respond to stimuli (Zhai et al., 2020). Accordingly, individuals tend to process stimuli inductively and adapt to the psychological interaction to develop a suitable behavior (Kim et al., 2020).

Media coverage and the promotional strategies of organizations to reduce animal abuse may have an important effect on tourist decisions/behaviors (Bertella et al., 2019; Blaer, 2022; Fennell, 2012a). However, the aforementioned variables require further examination with their psychological or cognitive mechanisms to formulate a clear relationship in the S-O-R framework. The implementation of S-O-R theory is ample. Thus, an S-O-R framework in combination with NAM constructs on explaining tourists' ethical behaviors has infrequently been used in tourism research. This study aims to fill these gaps, given that S-O-R's applicability, apart from the NAM variables in the context of animal ethics, has not been estimated through the following: 1) extending S-O-R theory by integrating variables, which

include media coverage and organizational strategies to reduce animal abuse as stimuli, cognitive and affective states toward animal ethics, ascribed responsibility, and personal norm as organisms, and tourist behavioral responses toward animal ethics as outcomes; 2) validating a research model that considers the linkage between media coverage and organizational strategies and other hypothetically associated variables, which include the NAM constructs that underpin the evaluation of animal ethics; and 3) identifying the relative importance among the proposed concepts within the S-O-R model on enhancing tourist behaviors toward animal ethics.

2. Literature review

2.1 Animal ethics and tourism

Animal ethics is an important topic and has become a critical issue concerning tourists' decision-making process. Animal ethics has continually been discussed in numerous contexts and studies, including agriculture (Liang et al., 2023), behavioral science (Olsson et al., 2022), and food policy (Hobbs, 2006). Recently, tourism studies have recognized the enhancement of animal ethics, as well as granting moral standing to animals (Fennell, 2013a; 2014, Fennell & Thomsen, 2021). Winter (2020) argues that animal rights and welfare should be considered, particularly when tourists embark on journeys to have an interactive experience with them (Winter, 2020). As people move beyond a human-centered perspective to include nonhuman nature, plants, and other species, the extension of ethical considerations to animals has become a progressively evolving practice in tourism (Hall & Brown, 1996; Hughes, 2001; Winter, 2020).

According to Flower et al. (2021), animals are more integrated into tourism activities and processes today in various ways. For example, they are utilized as a form of transport (Millspough et al., 2007), maintained and exhibited in zoos (Cohen, 2010), consumed as food

(Yudina & Fennel, 2013), and partaken in commercial hunts (Tickle & von Essen, 2021). Animals have become a symbol of attraction or destination, such as in tourism leaflets and as part of promotional campaigns, or are consumed as exotic local/regional food in certain tourism contexts (Hughes, 2001). Notably, animals tend to be recognized as objects/instruments instead of subjects in tourism. Hughes (2001) claims that tourists typically perceive the entertainment value that animals offer as opposed to the rights they should have for their own sake. For these reasons, certain attempts, such as recommending practical guidelines on how tourists should interact with animals (Araña & León, 2016) and establishing a code of ethics on animal-based tourism (Cohen, 2018; Fennell, 2014), have been made. Fennell (2022c) has recently proposed a set of hypernorms for animal-based tourism, including the adoption of new thinking and practices; the development of a state-of-the-art theory; a commitment to do no harm or nonmaleficence, education and literacy, advancing justice, recognizing animal agency and self-determination; and obtaining informed consent from animals. These hypernorms should be enforced at local and global levels (Fennel, 2022c).

Studies about animal ethics continue to intensify in tourism. However, the assumption that tourists' cognitive/affect responses toward animal ethics in tourism are positively developed is not always true. The important judgement will be whether tourists and tourism organizations are openly aware of animal rights and welfare and extend moral considerations to animals (Fennel, 2012a; 2013a). People today can recognize how animals are used in tourism in several ways, particularly through the media (Mkono & Holder, 2019). The media has reported from time to time about how animals are cruelly treated and abused by the tourism industry. For example, elephants are trained and forced to work using *hooks* (Board & Promchertchoo, 2020), tigers are left abandoned and starving in zoos during the COVID-19 period (Thaiger, 2020), and monkeys are constrained by ropes and controlled via unethical practices (Fobar, 2021). Animals are commonly utilized for tourist entertainment, the business

operations are offered financial gains (Winter, 2020), and the tourist organizations unavoidably receive public criticism and less support for the adoption of animals compared with the other sectors (Knight et al., 2003). In response to tourists' concerns about animal welfare, travel operators and animal attractions increasingly attempt to collaborate with animal welfare organizations to improve their animal-related policies and practices and avoid tours or activities that exploit or harm animals. TripAdvisor, for example, took an animal-welfare stand by discontinuing sales on activities/attractions that involve animal encounters (Sachs, 2016). However, not all animal attractions meet rigorous animal welfare standards. Some zoos and aquariums, such as those accredited by the Association of Zoos and Aquariums (AZA), have made efforts to provide high-quality care and habitats for animals, engage in research, and promote animal conservation and sustainability (AZA, 2022; Bangkok Post, 2018). A growing need arises to promote responsible and ethical tourism that considers animal welfare in the tourism industry.

Despite an increasing concern about animal rights and their well-being, tons of travelers continue to join animal-related activities (Winter, 2020), and they have a greater demand for extraordinary experiences (Cohen, 2019). This trend can be observed via *animal selfies*; service providers are increasingly using animals for photography, which involves tourists' taking photos of themselves with animals (von Essen et al., 2020; Kline & Fischer, 2023). Daly (2019) claims that approximately 40% of *animal selfie* images are referred to as immoral wildlife selfies. Arguably, unethically taking a selfie with an exotic/wild animal, such as by holding, touching, hugging, and interacting with them is unacceptable behavior (Winter, 2020). Not only does taking selfies harm animals' well-being and safety, it also promotes unethical treatment and exploitation of animals in the tourism industry. Behind the scenes, most animals are kept in uncomfortable and cruel conditions with considerable suffering after being taken from their usual habitat. To practice compassionate animal-based tourism, using appropriate

methods, such as the 3R strategy (replacement, reduction, and refinement) and respecting animal rights and welfare (von Essen et al., 2020), is important. Ultimately, the judgment of whether tourists and tourism organizations extend moral considerations to animals is crucial to shaping the future of animal-based tourism.

According to Fennell and Thomsen (2021), media outlets are considered effective and influential broadcasting tools for animal advocates to educate the public and business operators about important animal protection issues. Movies, television, printed publications, and social media can considerably develop the tourists' morals and reflect the emotional affluence and complexity of animals. High media exposure about moral responsibility regarding the protection/preservation of animals, including domesticated or wild habitats, could result in an increased degree of ethical concerns about animal protection (von Essen et al., 2020). The media and firms' organizational strategies are effective platforms for publicity; moreover, creating expectations about human–animal interactions (Fennel, 2012a), as well as emphasizing the necessary information and sympathetic practice, such as the introduction of codes of conduct, the launch of animal protection campaigns, and suggesting a collaboration among stakeholders to reduce animal abuse by the tourism industry, are important considerations to help enhance animal ethics and encourage tourists' moral obligation to travel with responsibility (Araña & León, 2016; von Essen et al., 2020; Winter, 2020).

2.2 S-O-R Framework

This research is fundamentally outlined by the S-O-R model, which was formerly established by Mehrabian and Russell (1974). The S-O-R model asserts that individuals generally respond to external environments in two ways, namely, approach and averting behaviors. Approach behaviors are concerned with all affirmative engagements/movements, such as the willingness to engage or travel; meanwhile, averting behaviors consider different

actions, which include the willingness to avoid negative situations (Chen et al., 2021; Mehrabian & Russell, 1974; Wen et al., 2022). According to Fakfare and Wattanacharoensil (2023), the S-O-R model accentuates how individual's behaviors are shaped by the surroundings and psychological states. Wohlwill (1976) illustrates that the emotion-eliciting of external environment is regarded as aesthetic incitements, whereas Bitner (1992) integrates cognitive/affective elements within S-O-R theory by extending its understanding to servicescapes.

S-O-R theory addresses the need for a comprehensive assessment of different forms of stimuli, which include internal/external surroundings, organisms (e.g., emotional qualities), and behavioral responses (e.g., repurchase intentions) in the customer behavior context (Bitner, 1992; Mehrabian & Russell, 1974; Shin & Jeong, 2022; Wang & Xia, 2021). Jacoby (2001) further proposes an integrative framework that incorporates cognitive and affective systems that engage prior experiences. Wu et al. (2021) have recently enhanced Mehrabian and Russell's S-O-R model to include perceived online atmospherics as stimuli that influence future adoption (response) via a mechanism of cognitive and affective assessments of a mobile application, such as attitude, perceived usefulness, and enjoyment (organism).

Chen et al. (2021) have enriched the S-O-R model by including perceived destination attributes and the constructs of affection/emotion in hospitality and tourism to evaluate the honeymoon destination quality comprehensively. Sultan et al. (2021) discovered that marketing communication channels are important stimuli that lead to the purchase intentions of organic food via hedonic and utilitarian values using the S-O-R framework. Fakfare and Sangpikul (2022) assert that the more effective the public strategies that the residents perceived toward tourism recovery, which result from the pandemic, the lower their degree of perceived fear of the external threat and the greater their satisfaction toward governmental organizations and policy makers concerning the S-O-R paradigm. The S-O-R model has been implemented

in various studies/disciplines and is vastly useful to elucidating the relationships among stimuli, organisms, and responses in the field of tourism (Ruan et al., 2022). However, the complex relationships among the fundamental variables within the S-O-R model are not entirely identified. Scholars have continually attempted to introduce and incorporate additional variables within the S-O-R framework to predict customer behavioral outcomes in specific contexts/settings. Individuals/tourists are likely to form appropriate behavioral responses, which result from the physical/emotional qualities of external environments, given that they are organisms that possess cognitive and affective systems and psychological rudiments that react to stimuli (Zhai et al., 2020). Accordingly, the current studies propose and examine an extended S-O-R model, embedding media coverage and organizational strategies as stimuli; cognitive and affective states regarding animal ethics apart from the NAM constructs, which include ascribed responsibility and personal norm, as organisms; and behavioral and word-of-mouth intentions toward animal ethics as responses. Figure 1 illustrates the proposed integrative model of animal ethics in tourism.

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2.3. Hypothesis development

2.3.1. Relationships among the constructs within the S-O-R model

Media coverage and organizational strategies on reducing animal abuse by the tourism industry usually pose a positive impact on tourists' decision-making process and behavior (Carr, 2009; Fennell, 2012a). An explanation for that outcome could be that media exposure and organizational strategies are from an intuitive context, and they are regarded as influential methods on enhancing an individuals' moral obligation to travel with responsibility when attending animal-related tourism activities (von Essen et al., 2020). Communication strategies and personal awareness about the environmental, political, and social aspects affect the

customer's ethical consumption intention/behavior in responsible consumption studies, implying that media and private/public organizations' policies have a critical part in consumers' decision-making that encompasses their ethical consumption behavior (Khanh, 2022). Furthermore, the perceived ethicality of consumers can be heightened via the initiations of organizational strategies and practices from a consumer behavior perspective, which include the dissemination of promotional contents via traditional/online media (Michaelidou & Micevski, 2019). Mass media, which include broadcast or TV programs, newspapers, the Internet and social media, and organizational strategies that emphasize feelings and the emotional values of animals can help develop moral concerns about animals in the eyes of tourists in the hospitality and tourism contexts (Fennell & Thomsen, 2021). Hence, the current study operationalizes the stimuli construct in the context of animal-related tourism by incorporating variables, such as media coverage and organizational strategies, to reduce animal abuse by the tourism industry.

Mehrabian and Russell's S-O-R theory has been extended in the area of servicescapes by incorporating the cognitive response construct (Bitner, 1992). Cognitive response refers to the psychological process of individuals triggered by chemical changes associated with their thoughts, attitudes, and beliefs (Schacter et al., 2011). Positive cognitions that result from an external/physical environment could arguably form favorable perceptions and beliefs toward an organization or a place, as well as its products and its people (Bitner, 1992). In Bamberg et al.'s (2007) study regarding environmental psychology, the cognitive response is discovered to comprise components, such as ascribed responsibility, personal norms, and problem awareness. Han et al. (2017a) have pointed out that cognitive dimensions, such as awareness of environmental problems and ethical concerns for environments, are important to examine the attendees' decision-making process and behaviors in the sustainable convention tourism context. Mass media, which include TV programs, newspapers, the Internet and social media,

and public/private organizations' strategies on restricting the types of animals used in tourism, can help heighten tourists' awareness and moral concerns of the negative consequences derived from animal-related tourism (Hughes, 2001; von Essen et al., 2020). This research operationalizes the cognitive response to animal ethics in tourism by incorporating variables, such as problem awareness and ethical belief, which are grounded in the studies mentioned above (Han, 2014; 2015; Kiatkawsin & Han, 2017).

According to Sultan et al. (2021), marketing strategies, as stimuli, have been found to affect the cognitive state of individuals (organism), implying that an individual's cognitive process develops as soon as they receive marketing cues; the anticipated attitude and belief are formulated on the bases of cognitive factors, which result from external stimuli, such as organizational strategies. If other initiatives about animal protection exist in response to the welfare of wild/captive animals used in tourism in the animal-related tourism context with additional media coverage, such as a call to participate in animal-related tourism with moral responsibility, tourists' cognitive states toward animal ethics would be possibly enhanced (Blaer, 2022; Fennell, 2012a; von Essen et al., 2020; Winter, 2020). This study proposes the following hypotheses for animal-related tourism, which are associated with the research mentioned above:

H1: Organizational strategies to reduce animal abuse by the tourism industry positively influence tourists' cognitive states concerning an ethical approach to animals in tourism.

H2: Media coverage by the tourism industry to reduce animal abuse positively influences tourists' cognitive states concerning an ethical approach to animals in tourism.

From the perspective of moral intuitionist theory (Haidt, 2001), moral persuasion “works not by providing logically compelling arguments, but by triggering new affectively valenced intuitions in the listener” (p. 819). Arguably, people choose to think about things about what is right or wrong based on their initial intuitions (Saltzstein & Kasachkoff, 2004). In Haidt’s (2001) study, precognitive intuitions, including affective responses, are believed to be essential in the formation of ethical decision-making. Emotional involvement is one of the subdimensions that denotes the extent to which “an individual is emotionally involved in a behavior” (Holsapple & Wu, 2007, p. 87) by considering the dimension of affective responses. Research that explores authentic experience in virtual reality tourism recommends that emotional involvement is one of the underlying components that comprehend tourist attachment and revisit intention (Kim et al., 2020). Pohlmeier and Blessing (2011) reveal in technology research a linkage between emotional involvement that results from a hedonic consumption experience and perceived usefulness and the functionality of technological products. In McKechnie et al.’s (2006) study, a positive association between emotional involvement and the customer’s perceived information/usefulness of financial services is unveiled. A greater extent of emotional involvement on attending animal-related activities in animal-related tourism is linked to further information that tourists receive about animal cruelty from mass media, as well as a greater notice that organizations endeavor to reduce animal abuse (Blaer, 2022; Fennell, 2012a; Hughes, 2001).

Furthermore, the construct of a feeling of guilt on addressing tourist behaviors has been recognized within the existing literature, particularly in NAM studies (Zhu et al., 2022). A feeling of guilt is regarded as an important affective dimension in pro-environmental behavior studies because it leads to a moral obligation that is felt more, which triggers prosocial behavior (Han et al., 2017a). Onwezen et al. (2013) also state that people anticipate positive feelings, as well as negative emotions, which result from experiences they have toward a particular

event/situation. The feeling of guilt stimulates them to comply with a moral norm when assessing an individual's behaviors associated with pro-environment (Han, 2014). Previous studies have revealed the existence of a relationship between the external environment and anticipated emotions, which include a feeling of guilt (Han et al., 2017a; Zhu et al., 2022). The current study operationalizes the affective response construct (organism) by using the aspects of emotional involvement and a feeling of guilt, given that a feeling of guilt and emotional involvement have been regarded as the underlying constructs in understanding an individual's affective response. Additionally, research is not performed to comprehend tourists' ethical behaviors that result from their affective state in the domain of animal-related tourism. Individuals are likely to develop their moral concerns about animal abuse when they notice a call to attend ethical animal-related tourism from mass media in the animal-related tourism context and when they receive further information about organizations' initiatives toward animal-related tourism programs in response to the welfare of domesticated/wild/captive animals (Lee, 2011; von Essen et al., 2020; Winter, 2020). The following hypotheses, which are in line with the studies mentioned above, are presented:

H3: Organizational strategies by the tourism industry to reduce animal abuse positively influence a tourist's affective states toward animal ethics in tourism.

H4: Media coverage by the tourism industry to reduce animal abuse positively influences a tourist's affective states toward animal ethics in tourism.

The S-O-R model suggests that a customer's cognitive response in the domain of a restaurant servicescape has an impact on their emotions (Kim & Moon, 2009). The cognitive dimensions of system quality and perceived usefulness in the online community context have been found to form a favorable attitude of online users (Gupta & Kim, 2007), implying that cognitive response is related to affective response. The interaction between cognitive and

emotional components is critical in the activation process of personal norm on environment behavior (Han, 2014). Han et al. (2017a) further assert that the cognitive factors of a hostile action often stimulate emotional response, such as a feeling of guilt. The extended S-O-R framework in VR tourism more recently suggests that a tourist's cognitive response positively affects their affective reaction in terms of emotional involvement, enjoyment, and flow state (Kim et al., 2020). The following hypothesis, which is based on the academic evidence provided above, is postulated in the context of animal ethics in tourism:

H5: A tourist's cognitive state toward animal ethics in tourism positively influences his/her affective response.

This study integrates the primary NAM variables, which include problem awareness, ascribed responsibility, and personal norm, as the organism constructs within the model by using an extended S-O-R theory. NAM, which was originally developed by Schwartz (1977), is enhanced to elucidate how an individual's moral obligations of altruistic behaviors are established. The NAM model has been extensively adopted in numerous studies in tourism, particularly to explain tourists' pro-environmental intentions/behaviors (Han, 2014; Han et al., 2017b; Zhu et al., 2022). Schwartz (1977, p. 227) states that the NAM model can be utilized to explain "any behavior motivated by feelings of moral obligation, not exclusively to altruistic behavior."

Three NAM constructs, namely, problem awareness, ascribed responsibility, and personal norm, are commonly adopted as predictors to examine pro-environmental behaviors/intentions (Han et al., 2017a; Han, 2021). Problem awareness, which is an alternative term for adverse consequences of valued objects, denotes the tendency that individuals become mindful of the potentially negative outcomes and welfare of others when not acting prosocially (Han et al., 2017b). Ascribed responsibility is defined as an individual's feeling of obligation

for the adverse consequences of not behaving prosocially (De Groot & Steg, 2009; Wang et al., 2022). According to Han and Hyun (2017), the terms “personal norm” and “moral norm,” which describe the feeling of moral responsibility about committing particular actions/behaviors, are often used interchangeably. This study conceptualizes personal norm as the feeling of moral obligation to travel with responsibility in the context of animal-related tourism when attending animal-related tourism activities. Ascribed responsibility is conceptualized as an individuals’ tendency to hold themselves responsible for the possible adverse outcomes of animal abuse by the tourism industry. Problem awareness refers to the tendency that individuals become mindful regarding the potentially adverse consequences and welfare for animals when not traveling and behaving ethically.

The norm activation process typically starts with an awareness of the consequences or a problem, which stimulates a potential obligation for the unfavorable impacts of not behaving prosocially/environmentally (Schwartz, 1977). Previous studies have indicated that prosocial intention/behavior can be affected by ascribed responsibility and personal norm (Han, 2014; Wang et al., 2022). Problem awareness arguably evokes personal norm, which determines whether individuals should develop or avoid particular behaviors to prevent an unfavorable consequence via cognitive/affective responses (Han, 2014; Han et al., 2017a). The extant studies on the NAM-based model have been broadly developed to comprehend a tourist’s prosocial behavior (Han 2015; Wang et al., 2022). Han et al. (2019) have declared significant relationships among problem awareness, personal attitude, affective responses, ascribed responsibility, personal norm, and behavioral intentions in the context of a comprehensive assessment of a passenger’s decision about attending an ecofriendly cruise, particularly in terms of word-of-mouth and purchase intentions, suggesting the important role of NAM variables to elucidate a customer’s choice behavior about attending ecofriendly cruise services. Kim and Hwang (2020) have applied the NAM model and the theory of planned behavior

(TPB) to explicate a customer's behavioral response for drone food delivery. Zhu et al. (2022) have successfully extended the NAM framework along with TBP to promoting sustainable and prosocial heritage tourism sites under the background of COVID-19. Recently, Wang et al. (2022) have effectively expanded the NAM model by integrating mass media exposure to understand overordering behavior in social dining. Moreover, von Essen et al. (2020) have found that through social media platforms, such as Instagram and Facebook, tourists can easily access and share information about animal tourism attractions and experiences, as well as see other travelers' photos and reviews. This scenario can create a social pressure to visit certain animal tourism sites and participate in certain activities, which can lead to an increase in demand for these experiences. Additionally, social media can help shape public attitudes and norms regarding animal ethics and welfare, which can influence individual beliefs, behavior, and word-of-mouth intention (Chi et al., 2022). For example, if a certain animal tourism site is widely criticized on social media for poor animal welfare practices, this situation can deter tourists from visiting and participating in that experience. Therefore, the following processes are important for animal tourism operators: considering the potential impacts of traditional and online media on tourist decision-making and behavior and prioritizing ethical and responsible practices to attract socially conscious tourists. In summary, mass media campaigns and public/private organizations' policies in the tourism-related context are typical techniques that can help create public agenda by enhancing the moral concerns of individuals to travel with responsibility (Sampei & Aoyagi-Usui, 2009).

The NAM model can be construed as a fundamental ground where problem awareness affects a personal norm that directly influences behavioral responses, which include word-of-mouth and behavioral intentions, via ascribed responsibility (Han et al., 2017b; Kim & Hwang, 2020; Steg & De Groot, 2010); moreover, the organism's internal evaluation process can stem from the primary NAM constructs (Han, 2014; 2015). The current research also embeds the

primary NAM variables within the S-O-R model to enhance the understandings into ventures that involve media coverage and organizational strategies to develop the ethical behaviors of tourists when they participate in animal-related tourism. Every tourist should arguably be aware of animal rights and welfare (Fennell, 2012a; 2013a), and the tourists must behave ethically when participating in animal tourism (Winter, 2020). The following hypotheses are postulated on the bases of the arguments mentioned above:

H6: A tourist's cognitive state toward animal ethics in tourism influences ascribed responsibility.

H7: A tourist's affective state toward animal ethics in tourism influences ascribed responsibility.

H8: Ascribed responsibility influences personal norm.

H9: Personal norm influences behavioral intentions toward animal ethics in tourism.

H10: Personal norm influences word-of-mouth intentions toward animal ethics in tourism.

3. Methods

3.1 Measurement development

The measurements for the research variables within the S-O-R framework were adopted from previous studies (Fennell, 2012a; 2013a; Han, 2014; 2015; 2021; Han et al., 2017a; 2017b; Kiatkawsin & Han, 2017; Kim et al., 2020; Lee, 2011; Schwartz, 1997; Stern, 2000; Zhang et al., 2022). A framework to assess the components associated with animal ethics on tourism was proposed using two composites, including media coverage and organizational strategies, to reduce animal abuse by the tourism industry by considering the external environment components (stimuli) (Blaer, 2022; Fennell, 2012a; 2013a; von Essen et al., 2020;

Winter, 2020). The cognitive and affective states on animal ethics in tourism were operationalized as the second-order formative constructs by applying the repeated indicator approach on the measures for internal assessment process (organism) (Henseler, 2021). Ethical belief for the cognitive states to animal ethics was evaluated utilizing four items (Chowdhury, 2020; Kiatkawsin & Han, 2017; Le et al., 2021; Zhao et al., 2020), whereas problem awareness was assessed using five items adopted from Han et al. (2017), Schwartz (1997), and Stern (2000). Three items were utilized on affective response to measure emotional involvement (Huang et al., 2013; Kim et al., 2020) and feeling of guilt (Han, 2014; Zhu et al., 2022). The NAM variables, such as ascribed responsibility, which included three items, and personal norm, which included four items, were used as the first-order factors, and the measurements were derived from previous studies by Han et al. (2017a), Schwartz (1997), and Stern (2000). Finally, tourist behavioral responses, which included behavioral and word-of-mouth intentions, were evaluated using three items adopted from Ajzen (1991), Caplow (2021), and Han (2015). The adopted measures were then modified to fit the current study context of animal ethics in tourism. This research used a seven-point Likert scale to evaluate the research variables. All the items were reassessed by a panel of experts to verify the content validity. The statements were slightly adjusted on the basis of their recommendations.

3.2 Data collection

We signed a contract with an online research company that has approximately two million panels in South Korea to obtain data. The company sent out email invitations to their panels using a dedicated link in September 2022. We first introduced the definition of animal-related tourism at the beginning of the survey. To obtain larger representatives of specific tourist groups, such as animal tourism, we considered the participants who have experienced animal-related tourism within the last five years. To allow the participants to prompt their memory cues, several photos, which included animal shows and animal selfies, along with

photo captions, such as “*I watched the animal (e.g., monkey, elephant, dolphin, crocodile) shows*” and “*I joined the activities to pose, ride, play or interact with animals in captivity*” were used to assist the participants in recalling their prior travel experiences. Only the participants who answered yes to the screening question (i.e., “I have experienced animal-related tourism within the last five years.”) continued with the survey. The survey during the week resulted in a total of 416 responses.

3.3 Analysis procedure

Partial least squares (PLS) and a generalized structured component analysis (GSCA) are commonly applied to estimate the study model with respect to assessing the composite-based structural equation modeling (SEM). A composite-based SEM is considered appropriate when the research purpose concentrates on prediction as opposed to model validation (Hair et al., 2020). Dijkstra and Henseler (2015) have introduced consistent partial least squares (PLSc). They have also suggested that researchers implement this approach over conventional PLS because PLSc overcomes the problem of the “over-estimation and under-estimation of parameters and better show results pertaining to path coefficients, correlations, and indicator/factor loadings” (Dos Santos et al., 2016, p. 1093). Furthermore, Hwang et al. (2021) have developed integrated GSCA (IGSCA), which is a novel technique that can simultaneously analyze common factors and composites. Hwang et al. (2021b, p. 273) state that PLSc and IGSCA can provide “unbiased estimates of all parameters, whereas other techniques often yield biased estimates of several parameters.” Nevertheless, the relative performance of IGSCA is slightly healthier than PLSc from the aspect of parameter recoveries. One main reason is that IGSCA considers the full information in the GSCA algorithm over partial information in the PLS framework. This study uses IGSCA to verify the study framework, given the prediction-oriented nature of this research and the complexity of the proposed research model (Hwang et al., 2020; Manosuthi et al., 2022a; 2022b).

Hwang et al. (2020) have recommended that the types of constructs used in the research model should be distinguished by the researchers to avoid unintentional bias in the analysis. The traditional constructs in this research, which include ascribed responsibility (organism), personal norm (organism), and behavioral/word-of-mouth intentions (response), are hypothesized as a factor model, given that their effect indicators are reflective. The remaining components are hypothesized as a composite model due to the independence among the items within the stimuli constructs, including media coverage and organizational strategies to reduce animal abuse and cognitive and affective states to animal ethics (organism) (Benitez et al., 2020).

4. Results

4.1 Sample profiles

The profiles of the respondents were first examined. Female respondents accounted for 50% of the 416 respondents. The average age of the respondents was 44.4 years old. Those who indicated that their yearly income rates are between US\$28,010–US\$49,005, US\$49,006–US\$70,000, US\$17,505 or less accounted for 35.1%, 31.2%, and 33.7%, respectively. A total of 66.8% had experienced animal-related tourism two to five times within the last five years, followed by one time (25.5%), and six or more times (7.7%). As for the education level, 61.8% had an undergraduate degree, 15.4% had a high school diploma, and 13.2% had a postgraduate degree. Interestingly, approximately 64.9% of the respondents had a companion animal.

4.2 Results of the measurement and structural models

This study used cutting-edge software called GSCA Pro 1.1.8 to conduct the measurement and structural model analysis (Hwang et al., 2021b). First, the composite-formative variables were assessed. Table 1 illustrates that the estimated weight values of media coverage (MC) and organizational strategies (OS) to reduce animal abuse by the tourism

industry, affective states (AS), and cognitive states (CS) toward animal ethics in tourism were positive; and the 95 percent confidence interval (95% CI) did not comprise zero, which verifies the relevance of each indicator/component that forms the formative-composite constructs. Next, the convergent validity of the common factors was justified, given that the average variance extracted (AVE) values and the standardized loadings for ascribed responsibility (AR), personal norm (PN), behavioral intentions (BI), and word-of-mouth intentions toward animal ethics in tourism (WOM) were greater than 0.5 (Manosuthi et al., 2021). Construct reliability was verified, given that the Dijkstra–Henseler’s rho values for all the common factors were above 0.6 (Hair et al., 2020). Discriminant validity was justified by considering that the HTMT ratios were generally below 0.9 by following Henseler’s (2021) suggestion. According to Table 1, all the common factors, which include ascribed responsibility, personal norm, and behavioral and word-of-mouth intentions toward animal ethics, were valid and reliable. Nomological validity was confirmed, given that the correlation among the component/factor scores was positive and in line with the theoretical ground (Han, 2014; 2015; 2021) (Table 2).

Path analysis was conducted afterward to examine the roles of media coverage and organizational strategies to reduce animal abuse (stimuli) in association with the organism and the response variables in the extended S-O-R model. Bootstrap analysis was performed using 5,000 samples. Table 3 illustrates that the path coefficients generally show a significant and positive relationship between the identified predictors and outcomes as hypothesized. Media coverage to reduce animal abuse by the tourism industry demonstrates a significant and positive relationship with cognitive states and affective states toward animal ethics in tourism (CI: 0.177 and 0.453; and CI: 0.002 and 0.154), supporting H2 and H4. Meanwhile, the findings reveal that organizational strategies to reduce animal abuse significantly influence cognitive states (CI: 0.003 and 0.268), which supports H1 but surprisingly exerts a nonsignificant impact on

affective states (H2) (CI: -0.024 and 0.119). Cognitive states toward animal ethics in tourism significantly affect affective states as expected, which supports H5. CS and AS exhibit substantial effects on ascribed responsibility (CI: 0.408 and 0.640 ; CI: 0.214 and 0.461), and ascribed responsibility subsequently influences personal norm (CI: 0.797 and 0.901), thereby supporting H6–H8. Moreover, the effect of personal norm on behavioral intentions and word-of-mouth intentions toward animal ethics in tourism is strong and significant, which supports H9–H10 and the concurrent validity.

5. Discussion and implications

5.1 Theoretical implications

Previous studies have explored animal-related tourism in different views and settings, but research has scarcely addressed it from the aspect of a tourist's ethical attitudes, affective states, and behavioral responses. This research, which is rooted in S-O-R theory, offers academics with comprehensive insights into theory development and validation regarding animal-related tourism by integrating the constructs of media coverage and organizational strategies to reduce animal abuse by the tourism industry and the underlying NAM variables, which include problem awareness, ascribed responsibility, and personal norm into the research model. The findings particularly provide several theoretical implications to the tourism researchers. For instance, the current study confirms the utility of the extended S-O-R model, including media coverage and organizational strategies to reduce animal abuse as stimuli, the tourists' cognitive and affective states regarding animal ethics, and the NAM constructs as the organism, which are represented by behavioral/word-of-mouth intentions toward animal ethics, before exploring the role of the organism on a tourist's response. Two prominent theories, which include S-O-R and NAM, are successfully fused to provide a more robust model on predicting a tourists' intention to behave ethically when taking a trip to participate in animal-

related holidays. Moreover, this research enriches the current animal-related tourism study by concentrating on organizational/communication strategies that influence a tourist's cognitive and affective responses, moral norms, and ethical travel intentions, which provide a fundamental ground for the development of animal-related products/activities and the enhancement of animal ethics in tourism.

One of the most theoretically significant results of this research shows that the external stimuli, which include media coverage and organizational strategies to reduce animal abuse by the tourism industry, have a noteworthy effect on a tourists' cognitive judgment toward animal ethics. The results imply that when tourists come across information about animal cruelty from mass media and/or notice an organization's initiative toward animal-related tourism programs in response to the animal welfare, they tend to form positive attitudes toward animal ethics and gain further awareness of the negative consequences derived from animal-related tourism, which includes additional mental stress and physical damage that may occur to the animals due to the commercial exploitation actions. These significant effects contribute to the tourism literature, which enhance previous research on the relationships among media exposure, publicity, and cognition (Ando et al., 2021; Wang et al., 2022). Furthermore, the current study finds media coverage to induce a tourists' affective state toward animal ethics significantly. This result can be inferred as follows: the tourist's affective states toward animal ethics, particularly in terms of feelings of guilt and emotional involvement, are possibly enhanced when individuals receive information about animal cruelty or notice a call to participate in ethical animal-related tourism from mass media. Media coverage and organizational strategies can be construed as underlying external stimulus constructs in the background of animal-related tourism, which is in line with Blaer (2022), Fennell (2012a), and von Essen et al. (2020).

The organizational strategies interestingly only exhibit a significant effect on the tourists' cognitive response as opposed to affective response. The organizational strategies do

not significantly influence affective response. However, this finding is not too surprising because the nature and the type of holidays anticipate the result. People are likely to focus merely on the fun and entertainment functions of animal-related activities when receiving marketing cues about animal-related programs from travel organizations (von Essen et al., 2020). Consequently, they overlook the emotional affluence and complexity of animals (Fennell & Thomsen, 2021). Therefore, with the nature of animal-related travel/activities, having profound organizational strategies to reduce animal abuse may neither help enhance the tourist's empathetic feelings nor foster them to feel remorseful about excessive commercial exploitation of animals and animal cruelty, despite developing the tourist's ethical behavior to travel responsibly and heightening their awareness about animal rights and welfare (Winter, 2020).

The research findings also offer empirical evidence of the role of cognitive response on influencing the affective response toward animal ethics. This significant impact explicates the strong causal relationship between cognition and affection, which echoes previous research about sustainability and pro-environmental intentions (Han, 2014; Zhu et al., 2022), and it verifies the existence of this theoretical relation about animal ethics in tourism (Fennell, 2022b). Furthermore, this study discovers the tourists' cognitive and affective states in animal ethics about significantly stimulating ascribed responsibility, as well as subsequently inducing personal norm. The important association among these variables provides a tremendous opportunity for theory development and verification, particularly in the animal-related tourism context, which enriches the results of former research (Han et al., 2019; Kiatkawsin & Han, 2017; Kim & Hwang, 2020), despite their differences in study domains/settings. In addition, the significant relationships between cognitive/affective states and fundamental NAM constructs theoretically show that the tourists' cognitive/emotional responses, ascribed

responsibility, and personal norm are sequential and robust processes, which substantially enhance the findings of prior studies (Han, 2015; Han et al., 2017a; Zhu et al., 2022).

Personal norm is conceptualized in this research as the feeling of moral obligation to travel with responsibility when attending animal-related tourism activities. The moral obligation particularly includes elements, such as feeling obliged to behave ethically and making efforts for the harmonious relationships between human beings and other species in animal-related tourism. These norms generally influence the tourists' decision-making process and prosocial behavior (Han, 2014). The results of the investigation verify that the personal norm that tourists perceive positively affects their intentions to spread word-of-mouth and intentions to participate in ethical animal-related tourism. This finding offers insightful implications for the academia and strengthens existing theory, particularly in the field of prosocial behavior and tourism (Han et al., 2019; Wang et al., 2022; Zhu et al., 2022).

In summary, this study offers a comprehensive insight into the academics in terms of the tourist's decision-making process and behavioral intentions based on an extended framework of stimulus, process, and response toward animal ethics in tourism. The current study successfully develops and verifies the utility of media coverage and organizational strategies to reduce animal abuse by the tourism industry as stimuli, which is grounded by S-O-R theory. A research model is developed; it incorporates the tourists' cognitive and affective responses to explain the tourists' response toward animal ethic in tourism apart from the key NAM constructs in an animal-related tourism setting. Our research model was successfully applied in the context of animal ethics, and it offers empirical verification of the effectiveness of the NAM constructs as an essential mechanism on shaping the tourists' ethical decisions/behavior toward animal ethics, which is in line with the existing studies that highlight the application of NAM variables on predicting prosocial behaviors (De Groot & Steg, 2009; Han, 2014; Onwezen et al., 2013).

5.2 Practical implications

The research findings suggest that tourism operators, destination managers, and marketers should focus on creating ethical content and utilizing the appropriate animal photos in tourism promotion because the media coverage about reducing animal abuse was discovered to have a considerable impact on the tourists' cognitive and affective states toward animal ethics. In other words, the content marketers of a travel organization/destination could apply ethical standards in promotional materials when publicizing animal-related travel programs/activities. Accordingly, the tourists become empathetic and avoid the abusive practices that pose mental stress and physical damage to animals during animal-related holidays. Organizational strategies on reducing animal abuse induce the cognitive response of tourists apart from media coverage. Hence, travel staff/executives should commit to the principles of animal welfare by being more responsible for its use in tourism. For example, the principle of “*do not harm*” with a particular emphasis on reducing the mental and physical suffering of animals should be applied (Fennell, 2022c). When tourists notice that the service providers endeavor to reduce animal abuse and restrict the types of animals used in tourism, they tend to realize the ongoing commercial use of animals, such as animal shows and animal selfies. Additionally, the cruel socializing training behind animal shows is wrong. Thus, they attempt to participate in a more ethical animal-related tourism. The tour operators' initiatives toward animal-related travel/activities in response to the welfare of wild/captive/domesticated animals should arguably be highlighted to help enhance the tourist's attitude toward animal ethics.

Travel/destination managers may boost critical cognitive determinants, such as problem awareness and ethical belief, focusing on nonmaleficence campaigns, given that the association between media coverage and organizational strategies on reducing animal abuse and the tourist's cognitive response is stronger than affective response. For instance, travel managers

may develop mobile apps and websites that facilitate necessary information, which include the *do's* and the *don'ts* for tourists during animal-related travel. Businesses and destinations can go the extra mile by designing travel programs/activities that facilitate volunteering experiences on promoting animal ethics. In this manner, the tourists may gain an improved understanding of state-of-the-art principles and practices in animal tourism while simultaneously having meaningful experiences during holidays (Blaer, 2022).

The destination managers and organization executives should concentrate on cognitive response if they want to establish the tourists' affective response, which is based on the research findings. For instance, practitioners should make efforts to develop ethical animal-related travel contents to be knowledgeable. Educational knowledge, moral considerations, and practical information about animal ethics could be disseminated via multiple sources of online/mobile/traditional media to enable the tourists to gain affective response toward animal ethics. Furthermore, travel designers and content marketers could tailor advertising messages to educate tourists about important animal protection issues, as well as publicize the negative outcomes of the current unethical manners/practices when participating in animal-related travel, given that the findings of this research supports the sequential process of the cognitive/affective response and ascribed responsibility on activating personal norm (Han, 2014; Kim et al., 2020). The tourists would feel morally obliged to behave ethically by heeding this call, and they would put in efforts to reduce the harm to animals when attending animal tourism.

Lastly, the research findings indicate that personal norm is a significant construct on developing the tourists' intentions to involve and convince others to participate in ethical animal-related activities. This result can be inferred as follows: the tourists' behavioral intentions are highly influenced by the individuals' moral responsibility to the protection/preservation of animals. Tourists are likely to show intentions to behave morally

and spread favorable word-of-mouth about ethical animal-related travel/activities when they possess a higher degree of ethical concerns about animal rights and welfare. Personal norm can enhance tourists' ethical travel intention. Thus, practitioners may involve travel bloggers/vloggers or travel influencers in creating contents about animal ethics in tourism. This kind of practice would cause public pressure on an individual to consider ethical issues and behave responsibly during animal-related holidays. In addition, businesses and destination marketers can further concentrate on the tourists' word-of-mouth once the travel contents on animal ethics are fully advertised because word-of-mouth is considered a voluntary advertising. Blaer (2022) claims that digital technologies can be leveraged to increase an individual's engagement in animal welfare. Thus, creating and sharing video contents regarding animal ethics in tourism via social media can engage millions of people and provide an opportunity for individuals to spread word-of-mouth in online communities based on their respective networks.

6. Limitations and future research

This study about animal-related tourism, which concentrates on enhancing the tourists' ethical intentions/behaviors, is restricted to the perspective of Korean tourists. Therefore, the results cannot entirely denote the generic perceptions and attitudes of tourists who partake in animal tourism experiences. Further research should be performed in different geographical areas to determine whether the findings can be generalized. Moreover, this research concentrates on the tourists' decision-making process and ethical behaviors that result from particular external stimuli, i.e., organizational strategies and media coverage, to reduce animal abuse. The application of other plausible stimuli, which include animal welfare literacy, exotic experience, and the perceived attributes of animal-related tourism, is encouraged to examine and test the relationships between the potential external stimuli, as well as the processes and responses identified in this study. In addition, the implementation of a different methodological

approach that is different from traditional methods, such as asymmetrical relationship testing (FsQCA), prioritization, and the best–worst scaling approach, can be adopted to other inducible means to develop tourists' ethical behaviors.

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Figure 1. Research model

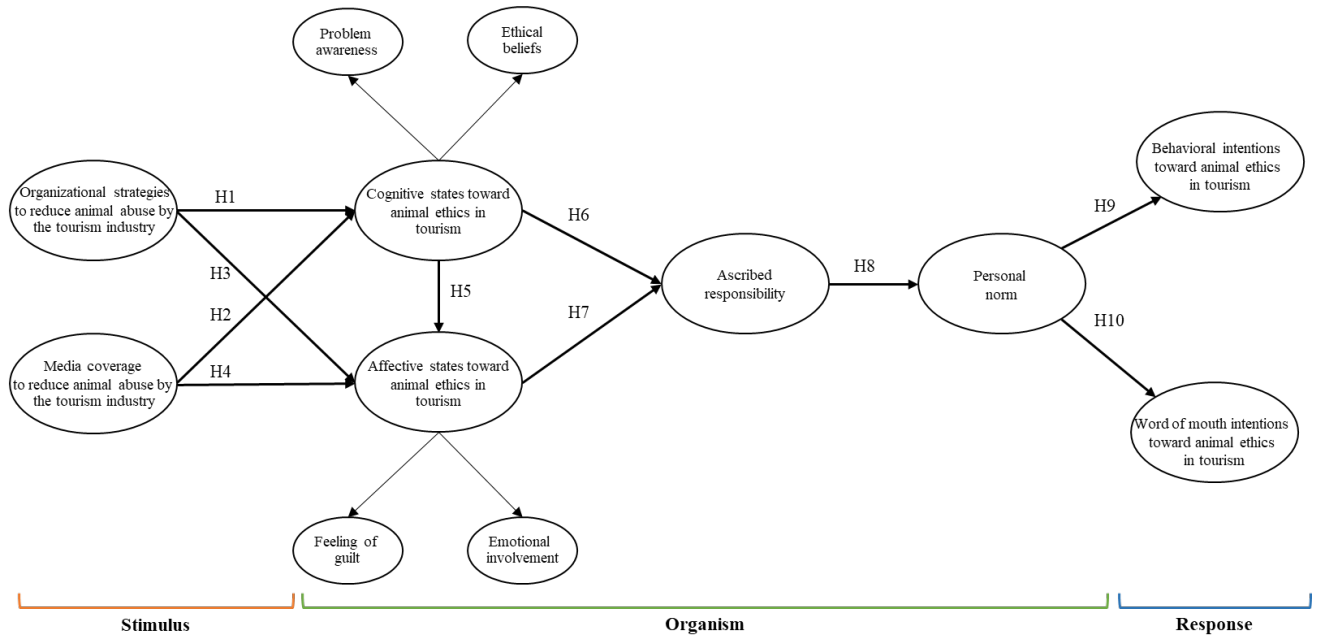


Table 1. Estimates of weights, loadings, and their 95% CI obtained from the measurement model analysis (n = 416)

Construct	Type	Indicator	AVE	rho	\hat{w}_i	$CI_{\hat{w}_i}$		$\hat{\lambda}_i$	$CI_{\hat{\lambda}_i}$	
MC	Composite	MC1: I often come across information about animal cruelty and a call to participate in animal-related tourism with ethical manners from mass media.	N/A	N/A	0.543	0.514	0.573	0.941	0.923	0.957
		MC2: I often notice/read information about a call to participate in animal-related tourism with ethical manners from mass media.			0.522	0.495	0.546	0.936	0.913	0.955
OS	Composite	OS1: I often notice that organizations endeavor to reduce animal abuse and to restrict the kinds of animals used in tourism.	N/A	N/A	0.543	0.526	0.565	0.941	0.923	0.957
		OS2: I often hear that tour operators' initiatives toward animal related tourism programs in response to the welfare of captive animals.			0.523	0.502	0.538	0.936	0.913	0.955
CS	Composite	EB1: The ongoing commercial use of animals (Monkey show, Elephant show, Dolphin show, and Crocodile show etc.) is not right in animal-related tourism.	N/A	N/A	0.246	0.227	0.265	0.838	0.679	0.951
		EB2: The cruel socializing training behind animal shows is wrong in animal-related tourism.			0.241	0.224	0.256	0.948	0.885	1.015
		EB3: I think the maintenance of the harmonious relationship between human beings and animals that are put into commercial performances is delicate and easily upset.			0.231	0.214	0.246	0.846	0.707	0.948
		EB4: We should prevent animal cruelty and the potential mental stress and physical damage to animals during animal-related travel.			0.232	0.215	0.251	0.857	0.748	0.956
		EB5: Tourists should try to participate in animal-related tourism in an ethical manner.			0.241	0.224	0.260	0.715	0.521	0.892
		PA1: More threats to the lives of animals due to the commercial exploitation actions			0.159	0.111	0.210	0.556	1.965	0.909
		PA2: More potential mental stress of animals due to the commercial exploitation actions			0.276	0.233	0.320	0.889	0.204	1.511
		PA3: More potential physical damage to animals due to the cruel socialising training			0.380	0.337	0.419	0.808	1.354	2.191
		PA4: Destruction of biodiversity and harmonious relationship between human beings and nature			0.292	0.240	0.341	0.079	0.222	1.652
		AS			Composite	FG1: I feel guilty about animal abuse by the tourism industry.	N/A	N/A	0.549	0.530
FG2: I remorseful about animal abuse by the tourism industry.	0.539		0.504	0.564		0.942			0.855	1.023
EI1: I am completely involved in animal-related tourism in an ethical manner.	0.348		0.300	0.407		0.419			1.953	0.905
EI2: I am deeply impressed by ethical animal-related tourism.	0.231		0.181	0.285		0.737			1.916	0.687
EI3: I feel totally empathy with animal-related tourism in an ethical manner.	0.554		0.496	0.592		1.002			2.710	3.313
AR	Factor	AR1: I feel jointly responsible for the negative consequences (e.g., excessive commercial exploitation on animals and animal cruelty etc.) caused from behaviors in animal-related tourism.	0.87	0.95	0.360	0.357	0.377	0.938	0.903	0.941
		AR2: I feel partly responsible for the negative consequences (e.g., excessive commercial exploitation on animals and animal cruelty etc.) arisen from activities in animal-related tourism.			0.364	0.362	0.385	0.953	0.923	0.954

		AR3: I believe that every tourist is partly responsible for the negative consequences (e.g., excessive commercial exploitation on animals and animal cruelty etc.) that arise from activities in animal-related tourism.			0.350	0.345	0.360	0.902	0.846	0.915
PN	Factor	I feel morally obliged to behave ethically in animal-related tourism.	0.72	0.91	0.302	0.288	0.320	0.877	0.817	0.884
		Regardless of what other people do, because of my own values/principles, I feel that I should behave in an ethical manner when participating animal tourism.			0.268	0.259	0.289	0.766	0.699	0.832
		I feel that it is important to reduce or limit the harm to animals and make behavior ethically while participating in animal-related tourism.			0.301	0.291	0.322	0.877	0.815	0.899
		I feel a moral obligation to take the ethical issues (excessive commercial exploitation on animals and animal cruelty etc.), and to make efforts for the harmonious relationships between human beings and other species in animal-related tourism.			0.302	0.294	0.323	0.880	0.841	0.896
BI	Factor	I will make an effort to participate in animal-related tourism in an ethical manner.	0.74	0.93	0.238	0.229	0.255	0.878	0.838	0.900
		I plan to participate in animal-related tourism in an ethical manner.			0.224	0.216	0.241	0.816	0.770	0.870
		I will engage in animal-related tourism activities with ethical manners.			0.235	0.230	0.253	0.869	0.832	0.908
WOM	Factor	I am likely to encourage others to engage in animal-related tourism with ethical manners.	0.87	0.95	0.360	0.352	0.365	0.934	0.896	0.950
		I am likely to recommend animal-related tourism with ethical manners to others.			0.362	0.351	0.367	0.938	0.907	0.943
		I will attempt to convince some of the people I know to engage in animal-related tourism with ethical manners.			0.352	0.352	0.370	0.922	0.914	0.950

Note: \hat{w}_i = estimated weights, $CI_{\hat{w}_i}$ = 95% Confidence interval of estimated weights, $\hat{\lambda}_i$ = estimated loadings, $CI_{\hat{\lambda}_i}$ = 95% Confidence interval of estimated loadings with 5,000 bootstrap samples, MC = Media coverage to reduce animal abuse, OS = Organization strategies to reduce animal abuse, CS = Cognitive states toward animal ethics in tourism, EB = Ethical beliefs, PA= Personal awareness, FG = Feeling of guilt, EI = Emotional involvement, AS = Affective states toward animal ethics in tourism, AR = Ascribed responsibility, PN = Personal norm, BI = Behavioral intentions, WOM = Word of mouth intentions

Table 2. Component/Factor correlations

	MC	OS	CS	AS	AR	PN	BI	WOM
MC	1	-	-	-	-	-	-	-
OS	0.594	1.000	-	-	-	-	-	-
CS	0.397	0.324	1.000	-	-	-	-	-
AS	0.412	0.344	0.815	1.000	-	-	-	-
AR	0.460	0.400	0.789	0.757	1.000	-	-	-
PN	0.411	0.338	0.841	0.780	0.826	1.000	-	-
BI	0.262	0.176	0.656	0.612	0.583	0.735	1.000	-
WOM	0.312	0.289	0.612	0.559	0.621	0.751	0.790	1.000

Note: MC = Media coverage to reduce animal abuse, OS = Organization strategies to reduce animal abuse, CS = Cognitive states toward animal ethics in tourism, AS = Affective states toward animal ethics in tourism, AR = Ascribed responsibility, PN = Personal norm, BI = Behavioral intentions, WOM = Word of mouth intentions

Table 3. Estimates of path coefficients, their 95% CI, and fit indices obtained from the SEM analysis

Relationship	$\hat{\beta}_i$	SE	$CI_{\hat{\beta}_i}$		f^2	R^2
MC->CS	0.316	0.071	0.177	0.453	0.11	0.17
OS->CS	0.136	0.068	0.003	0.268	0.02	
MC->AS	0.079	0.039	0.002	0.154	0.01	0.67
OS->AS	0.048	0.037	-0.024	0.119	0.01	
CS->AS	0.768	0.029	0.712	0.823	1.43	
CS->AR	0.513	0.059	0.408	0.640	0.35	0.66
AS->AR	0.340	0.063	0.214	0.461	0.13	
AR->PN	0.826	0.027	0.797	0.901	2.14	0.68
PN->BI	0.735	0.047	0.653	0.834	1.17	0.54
PN->WOM	0.751	0.032	0.697	0.820	1.29	0.56
SRMR	0.043					
FIT	0.801					
FITs	0.531					
FITm	0.899					

Note: $\hat{\beta}_i$ = estimated path coefficients, $CI_{\hat{\beta}_i}$ = 95% Confidence interval of estimated path coefficients, f^2 = effect sizes, R^2 = coefficient of determination, MC = Media coverage to reduce animal abuse, OS = Organization strategies to reduce animal abuse, CS = Cognitive states toward animal ethics in tourism, AS = Affective states toward animal ethics in tourism, AR = Ascribed responsibility, PN = Personal norm, BI = Behavioral intentions, WOM = Word of mouth intentions