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The moderating role of eco-destination image in the travel motivations and ecotourism intention nexus

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The moderating role of eco-destination image in the travel motivations and ecotourism intention nexus

Nguyen Thi Khanh Chi and Hanh Pham

Abstract

Purpose – This study investigates the moderating effect of eco-destination image on the relationships between travel motivations and ecotourism intention.

Design/methodology/approach – The study employs the convenience sampling method to develop a research sample, and the multivariate data analysis method to analyse the data of 435 valid observations collected in the structured questionnaire survey conducted in Vietnam.

Findings – The paper reports that the eco-destination image significantly strengthens the effects of four travel motives (i.e. excitement, escape, knowledge-seeking and self-development) on ecotourism intention. However, the moderating impact of eco-destination image on the link between socialising motive and ecotourism intention is insignificant.

Originality/value – This study is the first to shed light on the role of eco-destination image in strengthening the effects of travel motivations on ecotourism demand. The study provides a framework for segmenting promotion materials associated with destination image based on different types of customers' internal travel motivations. The framework includes four dimensions: (1) destination image reflecting enablers of excitement, (2) destination image reflecting enablers of escaping from daily life routine, (3) destination image reflecting enablers of knowledge-seeking and (4) destination image reflecting enablers of personal development.

Keywords Travel motivation, Eco-destination image, Ecotourism intention, Future ecotourism, Vietnam Paper type Research paper

1. Introduction

Ecotourism refers to all forms of nature-based tourism with educational and interpretation features, making positive effects on the natural and sociocultural environment and supporting the maintenance of natural areas. Ecotourism gained development momentum around the world before the COVID-19 pandemic. It has been demonstrated that nature-based areas are vital for people to deal with stress and to keep up physical and mental health amid the pandemic (Mandić, 2021; Becken and Loehr, 2022). Based on opened natural areas, ecotourism is less likely to face coronavirus transmission and shutdown than other forms of tourism. Accordingly, ecotourism is still expected to grow in the future (Newsome, 2020; Eddyono *et al.*, 2021; Chi, 2022). Thus, it is imperative to research shedding light on factors that induce ecotourism demand.

Promoting ecotourism demand requires knowledge about the factors motivating people to visit ecotourism sites. Tourism literature has identified various push and pull factors that motivate people to travel. Escape, excitement, socialisation, relaxation, enjoyment, cultural experience, novelty and knowledge-seeking have been widely shown as push factors that prompt people to travel in extant research (e.g. Adam *et al.*, 2019). Beyond such internal motives, a pull factor associated with a tourism destination, that is, destination image, plays a critical role in stimulating

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Funding declaration: This study belongs to the research project funded by Foreign Trade University in Vietnam under grant number FTURP02-2020-12. tourists' intention in the future to visit a destination (Su *et al.*, 2020a, b; Rahman *et al.*, 2020; Preko *et al.*, 2018). Marasinghe *et al.* (2021) have stressed the importance of understanding visitor perceptions of desired destination attributes and visitors' needs, expectations and motivations to gain essential insights for destination development.

However, the knowledge about how destination image interacts with individuals' internal motives in stimulating ecotourism intention is limited. Specifically, most of the extant empirical literature focuses on examining the impact of several travel motives on ecotourism intention (e.g. Lee *et al.*, 2014; Chi *et al.*, 2021; Postma and Schmuecker, 2017), or the direct effect of destination image on ecotourism intention (e.g. Pham and Nguyen, 2020; Chi and Han, 2021), or tourist behaviour towards technology (Buhalis, 2019) or ecotourism behaviours (Teeroovengadum, 2019; Chi and Han, 2021). The two most relevant studies to this research are Pham and Nguyen (2020) and Lee *et al.* (2014). Pham and Nguyen (2020) use a sample to examine the impacts of destination image, environmental concern and time perspective on ecotourism intention in the Vietnamese context. Lee *et al.* (2014) employ the South Korean tourist sample to investigate the links between travel motives and intention to revisit ecological parks. Note that these two studies do not examine the moderating role of destination image in the relations between travel motives and ecotourism intention.

Against this background, this study investigates the moderating effect of the destination image on the relationship between travel motivation and tourist intention to visit an eco-destination. The study selected Vietnam as an empirical setting for research. Vietnam has attracted many tourists to its naturally beautiful landscapes. However, similar to many developing countries, regulations in Vietnam, especially the ones on the environment, have not been well administered; hence, the ecological sustainability of many tourism locations in Vietnam is declining (World Bank, 2019). Therefore, a study using the data from Vietnam is pertinent for developing effective plans to promote ecotourism in this country and in other countries in the future in which tourist attractions are at risk of pollution and overexploitation. This study employs the data from 435 valid observations collected in the structured questionnaire survey conducted in shopping malls in Can Tho and Ho Chi Minh city, Vietnam, in April 2020. Using the multivariate data analysis method to analyse the data, the paper reports that eco-destination image significantly strengthens the effects of four travel motives (i.e. excitement, escape, knowledge-seeking and self-development) on ecotourism intention. Nevertheless, the moderating impact of eco-destination image on the link between socialising motive and ecotourism intention is found insignificant.

This study contributes to the future tourism literature by suggesting the roles of an eco-destination image in promoting specific travel motivation to travel intention to ecotourism sites. To our best awareness, the moderating role of the eco-destination image in the relationship between travel motivation and ecotourism intention has not been explored in previous future tourism research. Tourism literature scholars have identified various push and pull factors that encourage people to travel in the future (Carvache-Franco *et al.*, 2022; González-Reverté *et al.*, 2022). However, the knowledge about the interaction effect between the destination image and individuals' internal motives on ecotourism intention is scant. This research highlights the critical role of eco-destination image in stimulating the demand for ecotourism in the future through its direct impact and moderating effect on the links between travel motivations and ecotourism intention.

2. Literature review

2.1 Ecotourism intention

World Tourism Organization indicates ecotourism as all forms of nature-based tourism with educational and interpretation features, making positive effects on the natural and sociocultural environment, and supporting the maintenance of natural areas (World Tourism Organization, 2020). Stanković *et al.* (2021) provide a more straightforward concept, defining ecotourism as travelling to relatively undisturbed natural areas for study, enjoyment or volunteer support.

Accordingly, ecotourism is understood in this research as travelling to natural-based areas to enjoy the natural environment.

Behavioural intention represents the expectations of behaviour and the likelihood to act (Ajzen, 1991; Fu and Wang, 2020). Pham and Nguyen (2020) define ecotourism intention as an individual's foreseen or planned future engagement with eco-destinations. Accordingly, in this research, ecotourism intention is understood as an individual's intention to travel to relatively undisturbed natural areas to experience the natural environment and, sometimes, the cultural environment.

2.2 Travel motivation

According to Colquitt *et al.* (2000), motivation is seen as the process of the brain, providing energy and behaviour to the individual and a key factor for explaining individual behaviour. Wong and Musa (2014, p. 143) define travel motivation as "needs that are triggered by curiosity and the urge to gain new experiences and knowledge in a less familiar destination". In line with the extant literature, travel motivation is defined in this research as an internal force that leads an individual to engage in tourism activity.

Travel motivation has been widely considered in the existing literature as one of the key factors influencing ecotourism intention. For example, Meleddu and Pulina (2016), in their comprehensive framework examining determinants of the tourist intention to pay a premium price for ecotourism, suggest that tourist motivations for holidays, along with their preferences as well as their attitudes towards ecotourism, their environmental belief and subjective norms, significantly influence tourist intention.

The functional theory (Katz, 1960) proposes four motivation functions: a knowledge function, a value expressive function, an ego-defensive function and a utilitarian function that stimulates human psychological wants and needs. According to this theory, not all travellers have the same motivations, and diverse motivations influence their travel intention in different ways. Drawing on this theory, many researchers specify travel motivations into such factors as knowledge-seeking, self-development, relaxation and entertainment, novelty-seeking, socialising with family and friends, self-actualisation, health and fitness, prestige, escaping from routine and nostalgia (Preko et al., 2018; Carvache-Franco et al., 2022). However, there is limited knowledge about which type of motivation can lead to ecotourism intention when it comes to ecotourism. An exception is Lee et al. (2014). Using the empirical context of South Korea, their research finds that motives for knowledge-seeking, self-development, escape and excitement are significant determinants of ecotourism intention, while socialising motive is insignificantly correlated with ecotourism intention. Applying the functional theory, we identify five types of internal forces that probably induce ecotourism intention as suggested by the extant literature (e.g. Lee et al., 2014; Carvache-Franco et al., 2022). They are knowledge-seeking, self-development, excitement, escape and socialising. Knowledge-seeking refers to the desire to understand the world (Katz, 1960; Lee et al., 2014). Selfdevelopment indicates a motive that "an individual derives satisfaction from expressing attitudes appropriate to his values and his concept of himself" (Katz, p. 170). Excitement (or stimulation) specifies the aspiration to explore an unknown place, having unpredictable experiences, feeling excitement and experiencing the risk involved (Pearce and Lee, 2005). Escape is defined as relaxing and breaking away from routine life (Saayman and Saayman, 2006). Socialising is the term used to describe a form of interaction with other associates such as family, relatives and friends (Adam et al., 2019).

Because the impacts of these push motivation factors on ecotourism intention are already examined in previous research (i.e. Lee *et al.*, 2014), our research will focus on interaction effects between the push and pull factors on ecotourism intention. Therefore, instead of developing hypotheses about the impact of these five specific motives on ecotourism, we will discuss how these particular motivations may lead to ecotourism intention in the presence of a positive eco-appeal of tourism.

2.3 Eco-destination image

Lawson and Bond-Bovy (1977) define destination image as knowledge, perception, imagination and emotional thoughts that an individual has of a specific place or object. Crompton (1979) defines destination image as an individual's mental representation of knowledge, feelings and overall perception of a location. In line with the prior research, this study considers the destination image as an individual's general perception of a particular destination.

Many tourism studies classify destination image into cognitive image (Prayag, 2008; Rahman et al., 2020), affective image (Lee et al., 2005) and overall image (Del Bosque and San Martín, 2008). The cognitive component indicates the beliefs and knowledge of an individual about the place, while the affective component refers to an individual's emotional feelings towards a place's features (Zhang et al., 2014). The overall image component refers to an individual's holistic impressions of a destination (Echtner and Ritchie, 1991). It has been demonstrated that the overall image of a destination is one of the key factors considered by tourists when selecting a travel destination (De Lima Pereira et al., 2021). Some scholars (e.g. Akama and Kieti, 2003) argue that a location's success in attracting tourists depends more on the overall image than on any specific image component. Stylidis et al. (2017) report the significant role of the overall image in destination selection and tourists' behavioural intentions. Hence, in this research, we examine the overall image component and define eco-destination image as tourists' holistic impressions of ecodestination sites. Accordingly, an eco-destination image is understood in this research as the total impression of a certain eco-destination that an individual has. Typically, an eco-destination would be perceived as a nature-based area or a relatively undisturbed natural area, while a destination, in general, is not necessarily perceived in that way.

2.4 Hypotheses

Extant research widely suggests that destination image is a significant predictor of behaviour intention (Stylos *et al.*, 2016). Tourists having a positive destination image would perceive their trip quality positively and, in turn, would lead to behavioural intentions (Stylidis *et al.*, 2017). In the decision-making to choose a destination, images are linked with travel motivation, both consciously and unconsciously (Moutinho, 1987). However, the knowledge about the linkages among destination image, travel motivation and travel intention remains limited.

Previous studies argue that individuals with self-development motives are more likely to engage in tourism (e.g. Su *et al.*, 2020a). These studies indicate that tourist intention to visit a destination is an outcome of a mental process such as self-development, resulting in action and turning travel motivation into behaviour. Thus, the desire for personal development (e.g. interest, skills, self-confidence and accomplishment) towards the environment may make people choose ecological places.

Simultaneously, another research strand (e.g. Zhang and Lei, 2012) that focuses on destination image suggests that individual perceptions of the destination image are a prerequisite for their ecological travel behaviour. When having a positive perception of the eco-destination image, individuals certainly choose ecotourism rather than other types (Pham and Nguyen, 2020). Hence, it can be further deduced that if individuals, who want to address their attitudes and develop their personal values, receive a more positive image of the naturally undisturbed destination, they may form a greater intention to visit that destination. Accordingly, we propose:

H1. Eco-destination image positively moderates the relationship between the individuals' selfdevelopment motive and their ecotourism intention.

Furthermore, prior research suggests the existence of a significant relationship between knowledge-seeking and general tourism intention (Lee *et al.*, 2014). Adam *et al.* (2019) demonstrate that learning is the most critical motivation inducing seniors' travel behaviour.

Since ecotourism offers chances for learning and experiencing nature, people who want to learn more about nature are likely to choose ecotourism rather than other tourism products.

Meanwhile, some scholars stress that tourists exposed to a positive image of the environment tend to be more motivated to seek knowledge about nature (Kruger and Saayman, 2010). Tourists who seek knowledge and experience from a travel location tend to have a more robust perception of the location's attributes, such as heritage and culture. More significantly, people (with a high need for understanding the world) receive a positive image of a nature-based destination; they might seek to travel to ecotourism places. In other words, when people with a strong desire to improve their knowledge about nature or learn from the events are exposed to a positive image of ecotourism places, they will engage in ecotourism. Thus, we hypothesise:

H2. Eco-destination image positively moderates the relationship between the individuals' knowledge motive and ecotourism intention.

Previous research (e.g. Crompton, 1979) also indicates that people tend to travel to interact with their reference groups, including friends and family. Jang *et al.* (2009) show that Taiwanese senior travellers are driven by socialisation and relaxation motivations. Some studies (e.g. Adam *et al.*, 2019; González-Reverté *et al.*, 2022) even show that individuals can be more socialising with their friends and family when participating in ecotourism. This may be because, in natural settings, people may become freer and more sociable.

Therefore, the image of a nature-based destination could be appealing to people who want to travel for socialising because they might anticipate that in a natural-based environment, they have more chances to socialise with others than in a setting disturbed by human-made factors. In other words, when presented with images of naturally undisturbed places, people who desire to socialise might think of a natural environment where they can socialise with others without being interfered with by human-made factors, resulting in their choice of ecotourism when they decide where to travel. Hence, we propose:

H3. Eco-destination image positively moderates the relationship between the individuals' socialising motive and ecotourism intention.

Besides, extant literature (e.g. Iso-Ahola, 1982) proposes that people travel either to seek something or to escape from reality. Li and Cai (2012) demonstrate the existence of a correlation between the push dimension of travel motivation (intellectual, belonging and escape) and tourist intention in general tourism themes. Adam *et al.* (2019), in a rare study on travel motivation and ecotourism, report that escape factors induce travellers to choose eco-destination sites.

On the other hand, Baloglu and Mangaloglu (2001), using Turkish tourists' data, shows that escape motive and destination image are significant determinants of travel intention. Combining the findings from the prior studies, we argue that people who want to escape from their busy daily lifestyle and receive an image of the naturally undisturbed destination probably wish to visit that destination. Therefore, the following hypothesis is proposed:

H4. Eco-destination image positively moderates the relationship between the individuals' escape motive and ecotourism intention.

Last but not least is the excitement factor. Some research on general tourism themes (e.g. Broad and Jenkins, 2008) points to the critical role of the excitement factor in predicting tourist behaviour. Fu *et al.* (2020) provide evidence that excitement motivation positively affects tourist happiness, which leads to intention to travel to certain places. With respect to ecotourism, Lee *et al.* (2014) find that excitement motivation is a significant predictor of ecotourism intention. Pham and Nguyen (2020) show that the image of ecological places significantly induces an individual's intention to visit ecotourism sites. Combining the findings from Lee *et al.* (2014) and Pham and Nguyen (2020), we predict that an individual who is curious or wants to experience different things when seeing an

image of a naturally undisturbed destination tends to choose eco-destination for travelling. As such, we hypothesise:

H5. Eco-destination image positively moderates the relationship between the individuals' excitement motive and their ecotourism intention.

Figure 1 presents the conceptual model of this research.

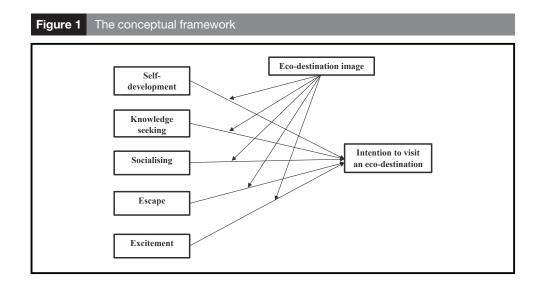
3. Methodology

3.1 Research area

Vietnam has become well known in the world for its naturally beautiful landscapes. It has eight places recognised by UNESCO as the world heritage sites since 1993 (Pham and Nguyen, 2020). Thanks to its natural beauty, Vietnam's tourism industry has received an increasing number of foreign and domestic tourists. There were approximately 18 million foreign tourists visiting Vietnam, and 85 million domestic tourists in 2019, an increased by 17.1% compared to 2018 (Vietnam Economy, 2019). Hence, the study of factors that can stimulate demand for ecotourism is essential for Vietnam's tourism industry and can serve as a reference point for other developing countries in the Asia region.

Ho Chi Minh City is the largest city in Vietnam in terms of population and scale of urbanisation. It is also the economic, political, cultural and educational centre of Vietnam. Ho Chi Minh City is located in the transition zone between the southeast and the southwest. It currently has 16 districts, 1 city and 5 rural districts, with a total area of 2,061 km² (796 sq mi). As of July 2021, according to the World Population Review website, the population of Ho Chi Minh City reached 9,077,158 people (GSO, 2022).

Can Tho is a city directly under the central government of Vietnam, and the busiest and most developed city in the Mekong Delta. Can Tho is currently a grade I city, an economic, cultural, social, medical, educational and commercial centre of the Mekong Delta, a regional and national central city along with Da Nang, Hai Phong. In 2019, Can Tho was Vietnam's 24th largest administrative unit in terms of population. The list of administrative units of Vietnam, according to GRDP, ranks 12th in terms of gross domestic product (GRDP), 11th in terms of average GRDP per capita and ranked 40th in terms of GRDP growth. As of August 2021, according to the World Population Review website, the population of Can Tho City was about 1,244,736 (GSO, 2022).



3.2 Measurement

This research utilises the existing measurement scales developed and validated by the extant empirical literature. Precisely, self-development is measured using the three items. Knowledge-seeking is proxied by four items. Socialising is measured by five items. Escape is reflected by three items. Excitement is measured by three items. All of the items measuring these constructions are adopted from Lee *et al.* (2014). Intention to visit eco-destination is evaluated using four elements developed by Choi and Johnson (2019) and Hultman *et al.* (2015). Eco-destination image was measured by four items: "Naturally beautiful landscape", "Appealing destination", "The look of an undisturbed area" and "The look of an unpolluted area" that were adapted from Stylidis *et al.* (2017) and Qu *et al.* (2011). All measurement items are presented in Table 2. A five-point Likert scale, taking a value from 1 (strongly disagree) to 5 (strongly agree), is used to quantify all items in this study.

The questionnaire was translated into Vietnamese by a professional translator. Before launching a questionnaire survey, two rounds of pre-tests on the readability of the questions were conducted. First, the questionnaire was filled out by 14 experts who are lecturers of five universities in Vietnam and specialise in tourism and hospitality management. After that, the wording of questions was refined as per experts' feedback to verify clarity. Second, the questionnaire was also pre-tested with 45 Vietnamese domestic tourists in Cuc Phuong National Park in January 2020. Cronbach's alpha is used to evaluate the data from this pilot test. The results show that all measurement items are satisfactorily reliable (each construct has Cronbach's alpha coefficient from 0.75 to 0.85).

An examination of common method bias and confirmatory factor analysis (CFA) was conducted to validate the measurement model. To check the common method bias problem, this research follows Podsakoff *et al.*'s (2003) approach.

3.3 Sampling and data collection

The sample unit in this study was an individual. The target population included domestic tourists over 18 years old who used to visit the ecotourism sites in Vietnam. The convenience sampling technique was used. Data were collected from two large cities in Vietnam (Cantho and Hochiminh) in April 2020. During this time of Covid-19 pandemic, the Vietnamese government had imposed some restrictions that prevented the authors from entering eco-attractions. Therefore, this research uses a mall-intercept survey designed upon Bush and Hair's (1985) guidance. The data were collected in shopping malls in Cantho and Hochiminh. The two cities are gateways to many surrounding eco-attractions. For example, there are 20 established ecotourism sites within 30 kilometres from Hochiminh city centre, such as Thuy Chau ecotourism and Golden Scorpion ecological tourist area (see Appendix 1). Within a diameter of 30 kilometres from Cantho city centre, there are 20 ecotourism sites such as Eco Mekong and Garden Ecology (see Appendix 2). Hence, there was a high chance of recruiting research participants from the two cities' populations who had visited eco-attractions before the onset of the Covid-19 pandemic. Potential research participants were politely approached and asked if they had ever visited eco-attractions. People answering "yes" were invited to participate in the survey. They were then introduced to the objective of the study, which was aimed to develop solutions for the protection of the natural environment from overexploited tourism. The data were collected using structured questionnaires distributed by six trained research assistants. The process was strictly controlled and monitored by one of the authors.

Six hundred questionnaires were handed to eligible research participants. The study used Chi and Han's (2020, p. 367) approach to delete the invalid data, by which "participants could stop their responses at any time and even submit incomplete surveys". There were 201 valid respondents from Ho Chi Minh city and 234 respondents from Can Tho city. A total of 435 valid survey questionnaires were completed, representing a retrieval rate of 72.50%. This response rate is

reasonable, ensuring statical validity with an appropriate 95% confidence interval and ± 0.05 sampling error.

3.4 Data analysis method

To examine the hypotheses, the authors followed Baron and Kenny's (1986) hierarchical regression analysis approach for testing moderating effects, and Kenny and Judd's (1984) guidance for calculating multiple indicators. Five travel motivations and eco-destination images were entered in the first stage, and then the interaction variables were simultaneously included in the regression in the second stage.

4. Results

4.1 Research sample profile

The research sample contains 435 valid responses. The demographics of the research sample are presented in Table 1. In the research sample, male participants account for 49% and female participants for 51%. Participants under 20 account for 16.4%, those in the age group 21–50 years account for 75.4% and those above 50 account for 9.1%. Of the research sample, people with full-time employment, with academic qualification of a university, with a monthly income of 1,000–1,500 USD and with a frequency of travelling two to four times per year account for 46.3%, 57.8%, 22.8% and 44.6%, respectively.

4.2 Measurement model

The results of CFA are presented in Table 2. The measurement model has acceptable indices associated with chi-square and RMSEA (chi-square/df = 2.184 and RMSEA = 0.052), while the other fit indices are all above the cut-off requirement of 0.90 (CFI = 0.933, TLI = 0.925 and IFI = 0.932) (Hair *et al.*, 2010).

As can be seen from Table 2, the composite reliability estimate of each construct (destination image at 0.818, intention at 0.884, self-development at 823, knowledge-seeking at 0.788,

Table 1 Sample profile		
Demographic		Percent of sample (%)
Gender	Male	49.0
	Female	51.0
Age	Below 20	16.4
	21–30	29.2
	31–40	29.4
	41–50	15.9
	Above 50	9.10
Frequency of travelling per year	Below 2 times	42.3
	2–4 times	44.6
	4–6 times	10.4
	Above 6 times	2.70
Job	Student	25.0
	Fulltime employed	46.3
	Freelance	19.0
	Homemaker/retired	4.50
	Other	5.20
Average spending per year (USD)	Below 100	23.1
	200–500	25.5
	500-1,000	22.8
	1,000–1,500	13.6
	Above 1,500	15.0

Constructs/variablesStandard loadingsCronbach's alphaComposite reliabilityAVEEco-destination image0.8120.8120.8180.55Naturally beautiful landscape0.8843.990.8230.61Appealing destination0.6653.790.8910.8230.61Look of an undisturbed area0.7214.230.8910.8230.61Develop my personal interests0.7223.460.7940.8230.61Develop my skills and capabilities0.7943.620.7970.7880.56Explore new places0.7073.730.7970.7880.56Experience different cultures0.6793.840.8530.8580.54Share a familiar place with others0.6602.840.8530.8580.54Inspire community consciousness0.7773.040.7710.7580.61Scape from the routine of life0.7743.470.7740.7430.7710.53Inspire community consciousness0.7773.640.7710.530.61Escape0.7773.640.7710.530.610.7430.7710.53Ineliness00.7773.640.7710.530.660.7430.7710.53Ineliness00.7773.640.7710.7330.7550.61Interiment0.7303.250.8830.8840.66Interiment0.7303.25<	Table 2 The reliability and corr	nvergent valio	dity			
Naturally beautiful landscape0.8843.99Appealing destination0.6653.79Look of an unpolluted area0.6263.94Look of an unpolluted area0.7214.23Self-development0.8910.8230.61Develop my personal interests0.7223.46Develop my skills and capabilities0.7943.62Gain a sense of self-confidence0.8203.38	Constructs/variables		Mean			AVE
Appealing destination 0.665 3.79 Look of an undisturbed area 0.626 3.94 Look of an unpolluted area 0.721 4.23 Self-development 0.891 0.823 0.61 Develop my personal interests 0.722 3.46	Eco-destination image			0.812	0.818	0.55
Look of an undisturbed area0.6263.94Look of an unpolluted area0.7214.23Self-development0.8910.8230.61Develop my personal interests0.7943.62Gain a sense of self-confidence0.8203.38Knowledge-seeking0.7970.7880.56Explore new places0.7073.73Experience different cultures0.6793.84Experience different tiltestyles0.7224.01Learn new things0.6613.68Socialising0.8530.8580.54Share a familiar place with others0.6602.84Inspire community consciousness0.7772.93Spend time with frainds0.7772.92Escape0.7430.7580.61Escape from the routine of life0.7743.47Relieve the pressure of life0.7733.38Ioneliness0.7773.64Find thrills and excitement0.7303.25Have fun, be entratined0.6743.66Vant to ease the feeling of0.7323.38Ioneliness0.8830.8840.66destination0.8213.75the near future0.8613.76Visit a nuturally beautiful location in0.8213.75the near future0.7773.98eartifutre0.7773.85	Naturally beautiful landscape	0.884	3.99			
Look of an unpolluted area 0.721 4.23 Self-development 0.891 0.823 0.61 Develop my personal interests 0.722 3.46	Appealing destination	0.665	3.79			
Self-development 0.891 0.823 0.61 Develop my personal interests 0.722 3.46	Look of an undisturbed area	0.626	3.94			
Develop my personal interests 0.722 3.46 Develop my skills and capabilities 0.794 3.62 Gain a sense of self-confidence 0.820 3.38 Knowledge-seeking 0.797 0.788 0.56 Explore new places 0.707 3.73 5.56 Experience different cultures 0.679 3.84 5.56 Experience different lifestyles 0.722 4.01 5.66 Learn new things 0.661 3.68 5.65 Socialising 0.853 0.858 0.54 Share a familiar place with others 0.660 2.84 5.66 5.66 Spend time with family and 0.689 2.93 5.6 5.67 5.67 Spend time with friends 0.777 2.92 5.62 5.66 5.66 5.6 5.67	Look of an unpolluted area	0.721	4.23			
Develop my skills and capabilities 0.794 3.62 Gain a sense of self-confidence 0.820 3.38 Knowledge-seeking 0.797 0.788 0.56 Explore new places 0.707 3.73 5 Experience different lifestyles 0.722 4.01 5 Learn new things 0.661 3.68 5 Socialising 0.853 0.853 0.858 0.54 Inspire community consciousness 0.773 3.04 5 5 Spend time with similar interests 0.797 2.93 5 5 6.61 Spend time with friends 0.777 2.92 5 5 5 5 Spend time with friends 0.777 2.92 5 5 5 5 Spend time with friends 0.777 3.64 5 5 5 5 Want to ease the feeling of 0.732 3.38 5 5 5 5 Valt nucle stiment 0.703 3.25 5 5	Self-development			0.891	0.823	0.61
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Inspire community consciousness0.7733.04Meet people with similar interests0.7972.93Spend time with family and0.6892.93relatives	Socialising			0.853	0.858	0.54
Inspire community consciousness0.7733.04Meet people with similar interests0.7972.93Spend time with family and0.6892.93relatives	Share a familiar place with others	0.660	2.84			
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Take ecotourism tour in the near0.7773.85		0.111	0.00			
		0.777	3.85			
	future	0.111	0.00			

Note(s): AVE = average variance extracted (>0.5), composite reliability >0.5. Chi-square/df = 2.184, CFI = 0.933, TLI = 0.925, IFI = 0.932 and RMSEA = 0.052

socialising at 0.858, escape at 0.758, excitement at 0.771) is satisfactory as it is above 0.70 (Fornell and Larcker, 1981), which indicates construct reliability. Table 2 shows that each construct has an average variance extracted (AVE) above 0.5, indicating convergent validity, as Fornell and Larcker (1981) suggest. Moreover, Table 4 reveals that the squared AVE is greater than the correlation coefficient between every pair of constructs, indicating the discriminant validity of the research constructs as per guidance by Fornell and Larcker (1981) and Hair *et al.* (2010). In brief, the results presented in Tables 2 and 3 show the reliability and validity of the measurement model.

4.3 Hierarchical regression analyses

The results from the first stage of hierarchical regression analysis presented in model 1 of Table 4 show that except for socialising motive, the other four travel motivations (knowledge-seeking, self-

Table 3 Disc	criminant va	alidity					
Constructs	Image	Knowledge seeking	Self- dev	Socialising	Excitement	Escape	Intention
Image	0.742						
Knowledge- seeking	0.545	0.748					
Self- development	0.602	0.712	0.781				
Socialising	0.583	0.688	0.749	0.735			
Excitement	0.356	0.573	0.574	0.660	0.728		
Escape	0.363	0.363	0.440	0.536	0.546	0.781	
Intention	0.441	0.448	0.466	0.473	0.525	0.442	0.812
Note(s): Italic nui	mbers = squ	lared average var	iance extra	cted (squared	AVE)		

Table 4 Results of hierarchical regression analysis

Relationship with ecotourism	First-	staqe mo	ndel 1	Secon	d-stage r	nodel 2	Hypothesis testing results
intention	β	Sig	t	β	Sig	t	
Knowledge-seeking	0.258	***	4.968	0.215	***	4.133	
Self-development	0.197	***	3.897	0.170	**	3.399	
Socialising	0.078	0.065	1.849	0.081	0.075	1.975	
Excitement	0.168	***	5.251	0.189	***	4.464	
Escape	0.222	***	4.274	0.154	***	3.982	
Eco-destination				0.181	**	2.156	H1: Accepted
Image $ imes$ knowledge-seeking							
Eco-destination image \times				0.146	*	1.784	H2: Accepted
self-development							
Eco-destination				0.109	0.101	1.645	H3: Not accepted
image $ imes$ socialising							
Eco-destination				0.142	**	2.148	H4: Accepted
image $ imes$ excitement							
Eco-destination				0.150	**	2.563	H5: Accepted
image $ imes$ escape							
		e = 85.49 d (R ²) = 0 000			e = 63.94 d (R ²) = 000	,	

Note(s): ***p < 0.001, **p < 0.01, *p < 0.05, VIF<2 in all cases, β = standardised β , *F*-value is the mean square regression divided by the mean square residual

development, excitement and escape) are significantly and positively correlated with ecotourism intention. The results also indicate a significant positive relationship between eco-destination image and ecotourism intention.

Table 4 (model 2) shows the second-stage results when all interaction terms between each dimension of travel motivations and eco-destination image are simultaneously examined. The coefficients of interaction terms between each travel motivation, except socialising, and the eco-destination image are significant and positive, indicating the significance of the interaction effects of these factors on ecotourism intention.

In addition to verifying the significance of interaction terms, measuring the change of R-square value between original main effects (the first stage) and the interaction effect (the second stage) is an additional method to examine the interaction effect using the hierarchical regression analysis. Table 4 shows that the F-value is also statistically significant (63.949), and the *R*-square value increases after adding interaction terms between the eco-destination image and each of the five travel motives. In conclusion, all the results show that except for the link between socialising and

ecotourism intention, eco-destination image significantly strengthens the relationships between four travel motives (i.e. knowledge-seeking, self-development, excitement and escape) and ecotourism intention. Therefore, except for H3, all the other hypotheses are accepted.

5. Discussion and theoretical contributions

The key findings of this study demonstrate that the destination image strengthens the effects of four travel motivations (i.e. knowledge-seeking, self-development, excitement and escape) on ecotourism intention. The results indicate that a pull factor associated with eco-attractions, if matching tourists' diverse internal push factors, can enhance demand for ecotourism. These findings are novel since there is no research investigating the role of destination image in the linkages between travel motives and ecotourism intention. Despite being new, they are pretty in line with both research strands, one on eco-destination image and the other on travel motivations.

Specifically, our findings suggest that positive images of an ecotourism site can attract people with self-development motives to visit the ecotourism site. This result is rather similar to Su *et al.*'s (2020b) finding that individuals with self-development motives are more likely to engage in tourism. It is also somewhat consistent with Pham and Nguyen's (2020) finding of a significant impact of eco-destination image on ecotourism intention.

Our results also indicate that people with a knowledge-seeking motive may want to travel to an ecotourism site if they see positive images of this place. This finding is somewhat similar to Lee *et al.*'s (2014) reports of the significant effect of knowledge-seeking on revisit intention. It is also in line with Kruger and Saayman's (2010) suggestion that tourists exposed to a positive image of the environment tend to have more motivation to explore nature.

Furthermore, our findings show that good ecotourism images can stimulate people with escaping motives to travel to eco-attractions in the future. This result is relatively consistent with Adam *et al.*'s (2019) finding that escape motive enhances travellers' demand for ecotourism, and Baloglu and Mangaloglu (2001) result that destination image is a significant determinant of travel intention.

Besides, our findings demonstrate that positive eco-destination images can attract people with excitement motives to eco-attractions in the future. This finding is quite similar to Lee *et al.*'s (2014) result that excitement motivation is a significant predictor of ecotourism intention. It is also in line with Pham and Nguyen's (2020) report of a substantial effect of ecotourism image on ecotourism intention.

Notably, our finding reveals that a positive ecotourism image is not strong enough to induce people with a desire to socialise to engage in ecotourism. This finding is relatively in line with Lee *et al.*'s (2014) report on the insignificant association between socialisation motivation and revisit intention.

Although the direct effects of eco-destination image and travel motivations are not the focus of this study, these direct effects are almost consistent with previous research. Specifically, the result of the significant association between eco-destination image and ecotourism intention validates the findings of Pham and Nguyen (2020), who used the same research context of Vietnam but a different research sample collected from other research sites and time of data collection.

Also, the results of the significant correlations between four travel motives (knowledge-seeking, self-development, escape and excitement) and ecotourism intention are consistent with Lee *et al.* (2014). Among the diverse travel motives, knowledge-seeking has the most significant impact on ecotourism intention, while excitement has the least effect (see the results in model 1 in Table 4). Escape has a greater effect on ecotourism than excitement. The reasons could be the emergence of ecotourism products such as rural tourism, which are also suitable for tourists to escape from the daily life. Specifically, rural villages have become popular weekend destinations for urban families to satisfy their travel demands for knowledge-seeking, self-development and escape (Chi *et al.*, 2020; Chi and Han, 2021).

Finally, this paper did not find a significant association between socialising motive and ecotourism intention. This finding is similar to Lee *et al.* (2014), but inconsistent with Adam *et al.* (2019). A possible explanation for the inconsistency could be that natural settings may matter for socialising more in African culture (Ghanaian in Adam *et al.*, 2019) than in Asian culture (Vietnamese in this study, and South Korean in Lee *et al.*, 2014).

This research makes two main theoretical contributions to the literature. First, it shows how the eco-destination image stimulates the demand for ecotourism in the future through its direct impact and moderating effect on the links between travel motivations and ecotourism intention. Research on the moderating role of eco-destination image in the relation between travel motivation and travel intention is scant. Our claim of gaps in the extant literature is supported by the recent comprehensive review of the ecotourism literature by Khanra et al. (2021) and our own review in the future. Very few studies touch on some aspects of the linkages between destination image, travel motivation and travel intention. Specifically, Phillips and Jang (2007) propose the moderating role of travel motivation in the relation between destination image and visit intention, which is opposite to our study. Pereira et al. (2019) suggest that destination image mediates the impact of travel motivation on tourist attitude. But, these studies examine destination image and travel intention in general rather than eco-destination image and ecotourism. Second, this research fills a knowledge gap in communication strategies for future ecotourism. Developing effective communication strategies to generate positive commercial outcomes (e.g. intention to visit or revisit) is critical for tourism companies. Still, it is under-researched in tourism literature, as pointed out in Toelkes (2018), the most recent review of research on tourism marketing. This study suggests that communication strategies should use ecological images relevant to different groups of people with varying travel motives.

6. Management implications and research limitations

The findings from this research offer management implications for both policymakers and ecotourism marketers. For sustainable development, policymakers should develop policies and regulations to protect the ecological images of tourism destinations in the future. Ecotourism marketers should develop marketing strategies in which the uses of destination images need to be relevant to diverse customer needs (i.e. their travel motivation). For tourists who want to travel for knowledge-seeking, tourism marketers should use the image of knowledge discovery in the ecotourism sites to attract this tourist type. Ecotourism marketers are advised to employ the images of events and environmental education workshops held at the ecotourism destinations to attract people who wish to travel for self-development. For tourists who want to travel to escape from their routine life, ecotourism marketers should promote the images reflecting mysterious and quiet places to this customer group. Finally, ecotourism marketers should promote compelling images of contests, outdoor activities and games held at eco-destinations to people who want to travel for self-development.

This study has some limitations. The research only focuses on variables driven by our research interest. It does not control factors that have significant influences on ecotourism intention, such as pro-environment attitude, environmentally moral values, adventure and nature experience reported in prior research (e.g. Perkins and Grace, 2009). We recommend future studies include such factors in empirical models as control variables to gain more robust results. Furthermore, our research examines only five dimensions of travel motivation. Future research can explore more dimensions of travel motivations when examining tourist behaviour. Also, further research could explore the moderating effect of other pull factors associated with ecotourism sites, such as accommodation, transportation and logistics infrastructure. More importantly, in reality, pull factors often coexist with internal push factors, stimulating travel demand. A study of push factors (e.g. travel motivations) without considering pull factors (e.g. destination image) could produce biased findings. Therefore, future research on determinants of travel demand should consider both pull and push factors in the research model.

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Figure A1
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Appendix 2



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