8-2017

The Impact of Photography on Tourism: Photography Construction Perspective

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To the Graduate Council:

I am submitting herewith a dissertation written by Justin Kaewnopparat entitled "The Impact of Photography on Tourism: Photography Construction Perspective." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Retail, Hospitality, and Tourism Management.

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The Impact of Photography on Tourism: Photography Construction Perspective

A Dissertation Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Justin Kaewnopparat

August 2017

ABSTRACT

Photographs are crucial elements that marketers integrate into all their marketing communication tools. As we can see from many brochures, websites, and billboards, many travel destinations portray the beauty of their locations through photographs aiming to attract more travelers to visit their destinations. In the same vein, tourists also use photographs as references for their decisions about where to spend their vacations. Due to this significant impact of photographs on tourism, marketers invest greatly in this visual stimulation tool. However, the impact of elements appearing in each photograph such as objects and color tones are overlooked. This experimental study investigates the effects of cool and warm color tones in a photograph taken from the same beach scene in a tourism context.

The results of the study reveal that although cool color tones are expected to generate only relaxation, in a beach photograph, cool color tones are able to trigger excitement as well as warm color tones do. It might be assumed that warm color tone photographs taken during sunset time are able to promote relaxation. In fact, cool color tones photographs trigger significantly more relaxation. The effects of cool and warm color tones in a beach photograph on perceived escapability were tested. The research model also reflects how excitement, relaxation, and perceived escapability lead to attitude toward the destination, the role of aesthetic evaluation and visual style of processing as moderators, and the relationship among affective responses, cognitive responses, attitude, and intention to visit a travel destination. This research also contributes to academic knowledge in the tourism context and thus fills a gap in previous literature.

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CHAPTER 1

INTRODUCTION AND GENERAL INFORMATION

Because travelling is a happy moment that people enjoy, most tourists take photographs when they travel as a part of their tourism activities (Cederholm, 2004). Therefore, it can be seen that tourism and photography are internally related (Lo, McKercher, Lo, Cheung, & Law, 2011). On the other side of the coin, many tourist destinations also present their destination images to their target tourists through photographs (Jenkins, 2003). Hence, images and photographs are crucial marketing communication materials that are used to promote tourism activities by many marketers (Cederholm, 2004).

Visual information has increased among various websites, allowing tourists to explore and see these destination images (Cao et al., 2010). This is because visual factors such as images and colors in a photograph directly affect the advertising recognition and help to recall that advertising (Percy & Rossiter, 1983). Photographs are used as important factors that affect decision making about travel destinations of tourists, influencing their behaviors, and reflecting their satisfaction of tourism places (Garrod, 2008). Therefore, many types of photography can present the tourist destinations in many perspectives. For example, some travel destinations' photographs show the beautiful landscapes and architecture (Snavely, Seitz, & Szeliski, 2006). Some photographs represent natural scenery and geographic locations (Cao et al., 2012). Some photographs might use different elements in those pictures such as color to affect people who look at those photographs (Lynn, Giebelhausen, Garcia, Li, & Patumanon, 2013). In this regard, the impact of elements represented in photographs that influences different decision making of

tourists about the travel destinations is still questionable because the effectiveness among these elements have not been tested or compared.

The beach is one of the most attractive places (Cao et al., 2012) and popular travel destinations that most tourists desire to spend time travelling to during their summer vacation (Lobo, 2014). More than 80 percent of tourists who travel to beach destinations such as Hawaii and Caribbean are travelling for pleasure (Lundberg, 1971). When travelling, tourists take many photographs on beautiful beaches which normally have unique characteristics, especially the famous ones (Cao et al., 2012). On the other hand, many scholars use those photographs to track geographical destinations by using geographical tags and creating a photograph database in order to provide destination information and recommendations to users (Cao et al., 2010; Cao et al., 2012; Snavely et al., 2006; Wang & Cao, 2013). Among the variety of beach photographs, we also can classify beach photographs by the time of the day that the picture was taken. During the day time, it can be seen with blue sky and blue or green color of the sea. During the evening time, beach photographs illustrate the orange, yellow, and red, affected by sunset. Also, these photographs might be post-processed according to photographers' perspectives to make photographs look more attractive the way they design them to be. These elements presented in a photograph might affect tourists in different ways. Considering that a beach destination is one of the most famous travel destinations for pleasure and there are many ways to portray a beach destination in a photograph, the different color tones of beach photographs will be focused on and used as a setting of this study.

In the photography construction perspective, most travel destinations hire professional photographers to take photos of their destinations. As a result, the photographs of destinations

are most likely presenting the destination artistically because they can be portrayed by using the photography theories such as the composition, rule of thirds, visual weight balance, colors, and lighting (Bhattacharya, Sukthankar, & Shah, 2010). However, this photography knowledge conveys the art perspective (Garlick, 2002) not marketing productivity. Namely, professional photographers are able to take a beautiful photograph and make it aesthetically pleasing. However, without knowledge of the impact of elements such as colors of a photograph in the tourism context, the impacts of those beautiful photographs on tourism motivation are limited because this has not been studied in the literature. The colors used might not be the most effective way for marketing communication to get the best results for a tourism business.

Luo, Wang, and Tang (2011) proposed content-based photo quality assessment by using a global feature which portrays the quality of a landscape photograph. Namely, using two dimensions of hue composition feature and scene composition feature can assess photograph quality from the artistic perspective. This artistic perspective is reflected in our realistic world. For example, when people see a photograph, one of the first things that comes to their minds is whether or not this photograph is beautiful. People tend to have aesthetic evaluation on what we see and to have a reaction towards things (Galanter, 2012).

In the hue composition feature, the color tones will be focused on. Different colors have different effects on human's perceptions, attitudes, and behaviors. Namely, many scholars have studied the effects of colors on human feelings (Kwallek, Woodson, Lewis, & Sales, 1997; Yang & Peng, 2008; Yildirim, Akalin-Baskaya, & Hidayetoglu, 2007). For instance, Yang and Peng (2008) reported that the warm colors such as orange and red induce the feeling of energy. Stone and English (1998) also support that cool colors such as blue can generate a calm feeling. Because

many travel advertisements and brochures use a photograph that consists of an image of a destination and its colors, this photograph of a travel destination increases emotional values that tourists feel toward that specific destination (Garrod, 2008). However, we still lack information and knowledge about the effect of colors in a photograph on tourists' intentions to visit a travel destination.

Objects presented in a photograph, on the other hand, can be classified as a scene composition feature (Luo et al., 2011). Beside a pure landscape beach destination, many beach photographs portray objects that can enhance the aesthetic and present the destination image. These objects can stimulate mental imagery of tourists who see the photograph and trigger affective and cognitive processes in different ways (Miller & Stoica, 2004). Therefore, the scene composition feature will be controlled in this study in order to investigate the impact of hue composition on tourism context.

Although photography relating to tourism has been studied in some academic literature, most of those studies focus on art and geographical disciplines (Garrod, 2008). To completely convey the destination images, marketers need to carefully fulfill the tourists' expectations and pull their motivations through photographs and images that perfectly present the destinations (Tuohino & Pitkänen, 2004). A good picture consists of many dimensions of photography such as photographic techniques, types of media, composition, contents, and colors (Albers & James, 1988). Every element presented in a photograph including the choice of color tones in a photograph might be a crucial factor that influences the emotional factors of tourists. Therefore, it is important to investigate how the impact of photography elements such as hue composition leads to tourists' intentions to travel. Marketers use photographs as important tools to advertise

their travel destination through a variety of media channels (Cederholm, 2004; Michaelidou, Siamagka, Moraes, & Micevski, 2013). Moreover, advertising can be viewed as a long term investment of business strategies and its expenditures depending on the type of media and frequency. Businesses might spend a lot of money on their advertising to create brand awareness (Ali Shah & Akbar, 2008). By selecting ineffective photographs that have low impact on tourists, the advertisers could waste their budgets, resulting in ineffectiveness of their advertising strategies.

To date, there is scant study of photography relating to tourism in consumer behavior perspectives, and no specific study has been conducted to examine tourists' perceptions of colors from beach photographs in a tourism context. To directly fill this gap, this research will focus only on the photography construction of how to make the most effective photographs of a beach destination that involves marketing communication strategy planning. Although there are many motivations and objectives of travelling such as travel for business, health, and education, the majority of tourists around the world travel for pleasure (Lundberg, 1971). Therefore, the purpose of this study is to examine the impact of photography on tourists' intentions to visit a tourist destination for pleasure by comparing the different color schemes in a beach scene. These colors in the photograph of a beach might affect tourists' affective and cognitive processes, resulting in the attitude toward that beach and intention to visit the travel destination.

CHAPTER 2

LITERATURE REVIEW

The previous chapter provides general information, background, and purposes of this research. This chapter elaborates on the literature related to this study. It is ordered from a broad perspective of the theoretical framework, to photography in tourism in general, and to specific constructs of this study. Hypotheses are developed using insights from previous literature knowledge. Finally, the relationships among variables are illustrated in the proposed research model.

Theoretical Framework

Developed from the original Stimulus-Response (S-R) model , Mehrabian and Russell (1974) added an internal process as a mediator and proposed a very well-known paradigm in psychology called Stimulus-Organism-Response (S-O-R). This model has been used widely to test and explain consumer behavior in various settings (Chang, Eckman, & Yan, 2011; Kim & Lennon, 2013; Thang & Tan, 2003). Stimulus can be seen as external factors including situations, which comprises a particular time and space, and objects, which are presented and are involved in those situations (Belk, 1975a). The stimulus directly affects the internal process of humans, such as perceptual thinking and physiological feeling, which is called organism (Bagozzi, 1986). This process results in some type of behavioral response as the final action according to the S-O-R model (Mehrabian & Russell, 1974). Figure 1 presents the S-O-R model.

Figure 1: S-O-R model

Belk (1975b) extended the SOR concept by dividing the stimulus construct into two separate dimensions: situations and objects. He explained the situation as the combination of a point in time and space. When there are multiple points in time and they relate to different places, it results in many different situations. These situations might involve humans, which have many sets of actions, and present that action pattern of the individual in a behavioral setting (Barker, 1968). When we look in a larger scale, the combination of situations and behavioral settings is called the environment. However, the situation reflects the relationship among elements of the holistic environment at a particular time. Objects, on the other hand, are elements which affect how consumers respond and can be seen as a significant source of behavior influence (Belk, 1975a). Both situations, which refer to time and space, and object, affect the organism and then result in some kind of response to that internal reaction.

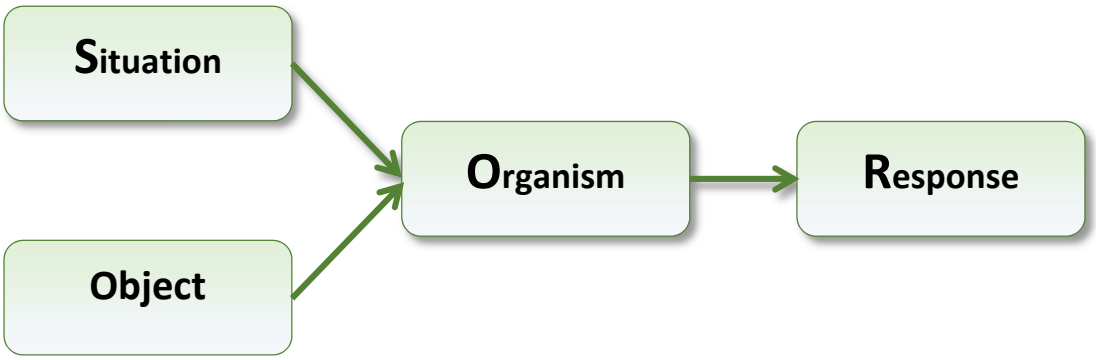

Figure 2: The revised S-O-R model by Belk (1975b)

In this study, different types of photographs are used as the stimulus. Namely, two different color tones of a beach photograph represent the situational factors (which represent a point in time when the photograph was taken and space where the beach was located) and different elements in the photograph, as object factors, will be a controlled variable in this study. This stimulus will affect the tourists' organism affectively and cognitively during the internal process. Finally, this process will trigger tourists' response, which is the attitude toward this beach destination and the intention to visit the beach destination represented in the photograph.

Photography in tourism

Photography endorses good memories about travel destinations and reflects travelling experiences through pictures (Berger, Denk, Dittenbach, Pesenhofer, & Merkl, 2007). Taking a photograph becomes a part of tourism activities which are rooted deeply in tourists' experiences

(Cederholm, 2004). When travelling, most tourists take photographs of the destinations and share both photographs and their travel experiences with others (Groves & Timothy, 2001). In the same vein, travel destinations present their destinations through photographs on their brochures and postcards to attract tourists (Garrod, 2008). Consequently, there is an internal link between photography and tourism (Lo et al., 2011).

Jenkins (2003) presents a photo tourism concept called *the circle of representations* by illustrating that there is a relationship between tourism destinations' photographs as iconic photos and tourists' photographs as regular photos. These sources of photographs provide information and influence each other. For example, many tourist destinations use photographs on their brochures, billboards, and web sites to advertise their location images and attract tourists to go to their destinations (Cao et al., 2010). In the same vein, tourists also use photographs and images as a crucial tool to determine destination choices (Garrod, 2008).

Moreover, Berger et al. (2007) report that individuals use photographs to recall their personal memories and experiences of the places they traveled. Photographs also illustrate the variety of perspectives that tourists have of destination images, which can be seen as a unique visual experience of each individual (Lo et al., 2011). Some photographs also capture the beauty and uniqueness of the destinations such as beach photographs. These photographs, when they are embedded with geographical location tags, can be used as a visual database to provide information and suggest a destination recommendation to tourists (Cao et al., 2012).

Beach Tourism

In the tourism industry which consists of many types of markets, beaches are a significant destination which benefit many seaside tourism countries (Phillips & House, 2009). Beach tourism is distinctive when compared to other types of tourism because of the nature of its geographical location, which combines sea and sand scenery. This supports many other types of tourism-related businesses including hotels, restaurants, and transportation (Calderón García, Gil Saura, Carmelo Pons García, & Gallarza, 2004). Many beaches allow tourists to experience many marine types of activities including swimming, snorkeling, scuba diving, and surfing (Van der Merwe, Slabbert, & Saayman, 2011). These activities can make beach tourism more attractive to travelers where other destinations cannot offer the same type of activities.

Because people relate beach vacations to the sun (Calderón García et al., 2004), sometimes tourists plan to travel to a beach according to the weather. Perch-Nielsen (2010) has studied the vulnerability of beach tourism to climate change and found that climate change affects beach tourism differently depending on the size of the country. To illustrate, large developing countries and small island states are more highly vulnerable to a climate change compared to developed countries because they have high exposure but a low adaptive capacity on tourism.

Although tourists might go to a beach with different purposes such as business, education, or pleasure, all can enjoy the beautiful scenery, sea, and sun of a beach destination. Van der Merwe et al. (2011) have studied tourists' travel motivation to select marine destinations and found that the major motivations that lead tourists to go to beaches are to escape from their

daily life and to find relaxation. For pleasure travelers in particular, escape seems to be a main motivator. Because of their attractions, the marine-related travel destinations growth rate has surpassed most other travel destination types (Eagles & McCool, 2002).

Beach Photographs

Because many tourists desire to go to a beach for their vacation (Lobo, 2014), many beach photographs from tourism destinations are taken. Moreover, photographs can be used to present values of a journey and destination (Groves & Timothy, 2001). Therefore, a photograph of beach scenery might contain many elements in that photograph such as water, boats, buildings, people, trees, and colors (Cao et al., 2012). Beach photographs are presented in many colors depending on the time of the day that those photographs are taken. Namely, a beach photograph that was taken during the day consists of cool colors from the sky and ocean such as blue and green, whereas a beach photograph that was taken during the evening time consists of warm colors such as yellow, orange, and red.

The researcher conducted a content analysis to see attributes presented in beach photographs used in travel websites. The list of attribute elements, frequency, and percentage of those elements are illustrated in table 1.

Table 1: Content analysis of beach photographs

	zicasso.com	lonelyplanet.com	Tourismthailand.org	tripadvisor.com	kensingtontours.com	buffalotours.com	diethelmtravel.com	sunleisureworld.com	asiatranspacific.com	remotelands.com	**Total**	%
Total Beach photos	33	63	151	174	22	35	24	101	9	44	**656**	100%
White sky	4	7	13	30	3	7		24	1	6	**95**	14%
Blue sky	19	30	92	87	17	22	20	54	6	25	**372**	57%
Orange/Yellow sky	3	6	14	27	1		2	1	2	1	**57**	9%
Mixed colors sky	2	2	4	4						1	**13**	2%
Gray sky		1	5	7		1		2		1	**17**	3%
Night shot / dark blue sky	1	1	7			1	1				**11**	2%
Top view		4	18	15	3	3		7			**50**	8%
Water (Sea)	29	56	135	169	22	35	23	97	9	42	**617**	94%
Mountain / island	24	35	65	127	20	21	13	80	7	26	**418**	64%
Boats	16	27	20	82	19	16	16	49	5	15	**265**	40%
Beach (Sand)	13	31	71	98	11	19	7	38	5	22	**315**	48%
Rocks	3	14	6	25	3	8	1	10		6	**76**	12%
Trees	7	11	41	48	6	6	7	18	1	15	**160**	24%
Beach chairs	6	10	15	11	1	2	2	8	2	7	**64**	10%
Dock	3		5	3				1	2	2	**16**	2%
Parasols	3	8	14	10		1	2	8	2	5	**53**	8%
People canoeing	1		3				2	7			**13**	2%
People resting	1	4	3	1	1			2		1	**13**	2%
People snorkeling	1	1	5	1		3		2		1	**14**	2%
People parachuting	1							2			**3**	0%
People swimming	1	1		7		4		3		3	**19**	3%
People diving		1	2	1						3	**7**	1%
People on the beach		6	13	24		14	1	13		4	**75**	11%
People playing on the beach		1	2	1				1			**5**	1%
People in a boat		3	2	4	1	1		6		4	**21**	3%
Fisherman / fishing		1		2	1	1	1	1			**7**	1%
Sunset	1	2	2	14					1	1	**21**	3%
Swimming pool	1	3	14				2			4	**24**	4%
dining table	1	3	4	1		1	3				**13**	2%
Under water		3	5	2		1		1		7	**19**	3%
Coral		2		1		1				7	**11**	2%

Table 1. Continued

	zicasso.com	lonelyplanet.com	Tourismthailand.org	tripadvisor.com	kensingtontours.com	buffalotours.com	diethelmtravel.com	sunleisureworld.com	asiatranspacific.com	remotelands.com	**Total**	%
Total Beach photos	33	63	151	174	22	35	24	101	9	44	**656**	100%
Fish		1	1	2		4				7	**15**	2%
Crab/shell		1	1								**2**	0%
Cave		1	3	5			1	5		1	**16**	2%
House/Bungalow		4	17	6	1	2		5		8	**43**	7%
Fishing nets		1									**1**	0%
Street vendor		1		1							**2**	0%
Temple			1	1							**2**	0%
Hammocking			2	1			1				**4**	1%
Flower			2		1					1	**4**	1%
Swimming Tube								3		2	**5**	1%

It can be seen that a variety of elements are presented in beach photographs. The clear sky color can be seen from putting a camera in an angular resolution from a sky dome (Hernandez-Andres, Lee, & Romero, 2003). Different colors of the sky can be affected by the time of the day and when the effect of ozone and sun light angle influence the tone color of the sky (Hulburt, 1953). Approximately half of the beach photographs (57%) are presented with blue color sky, followed by white sky (14%) and orange sky (9%) respectively. Many landscape photographs use the sky as the robust indicator and present its category which influences our understanding of the photograph (Gallagher, Luo, & Hao, 2004). This sky color can be easily designed and manipulated by selecting the right time of taking photos and the angle of the

camera. Moreover, after taking the photos, colors in a photo can be adjusted and improved by using photo editing software such as Adobe Photoshop and Adobe Lightroom (Boust, Brettel, Viénot, Alquié, & Berche, 2006).

On the other hand, natural geography creates a variety of landscapes that are captured in a photograph such as mountains, trees, rocks, and sand. These landscape attributes are mostly fixed and present the uniqueness of the destination location by the longitude and latitude dimensions (Yin, Cao, Han, Zhai, & Huang, 2011). Water, mountains and/or an island, and the beach are major attributes presented in many beach photographs at 94%, 64% and 48% respectively. These objects also have different colors and make each photograph look different.

Hue and scene composition

Following the SOR theoretical framework, Belk (1975b) separated stimulus into two main dimensions: situation and object. The situation is the combination of space and a point in time. In this study, a beach destination can be geographically seen as a space. Color tones, resulting from sunset and daytime, can be seen as a point in time. Therefore, both beach destination and its color tone represent the situation in this research. On the other hand, objects in a photograph will be controlled in this study in order to investigate the effects of color tones.

In the same vein, Luo et al. (2011) studied content-based quality assessment and proposed a new global feature to measure the quality of landscape photographs. Unlike regional features which focus on the clarity of subject area and its background in a photograph, global features focus on hue and scene compositions. Therefore, a global feature is a very important

factor used to analyze the quality of landscape photographs compared to the regional features which work well to analyze portraits or animal photographs.

In photography, hue is defined as “the dominant wavelength of the color and is represented as the circumference on the sphere” (Laliberte, Rango, & Fredrickson, 2006, p. 1). Therefore, the hue composition feature determines color composition schemes and is considered a significant element of landscape photograph (Luo et al., 2011). In the color design process, we can decide between selecting every object in the same color scheme tone as harmonized colors or selecting different color scheme tones as the contrast colors (Tokumaru, Muranaka, & Imanishi, 2002). Therefore, professional photographers select the color of the scene and lighting conditions for their photographs. By taking photos in a variety of times such as the morning, during the day, or in the evening, they can change the scene to look different (Ke, Tang, & Jing, 2006). This also affects the colors of sky as a blue sky when a photo is taken during the day time, gray sky when a photo is taken during a cloudy day, and red or reddish-yellow when a photo is taken during sunset (Tao, Yuan, & Sun, 2009). During the daytime, natural daylight can help photographers take a very good photo because enough lighting in the scene relates to the quality of the photograph (Kerp & Bomfleur, 2011). However, in the evening, the sunset changes the lighting condition in a scene and makes photographs look better compared to the same scene during the day (Ke et al., 2006). As a result, there are varieties of photographs taken in different times of the day and presenting the different color tones of those photographs. Therefore, hue composition, which is a byproduct of the time of the day when a photograph is taken, is a significant factor in the quality of photographs.

Scene composition has been explained briefly by Luo et al. (2011) in a very abstract term as the spatial structure and the orientation of semantic lines. This well-arranged combination can draw the attention of the audience and present semantic meanings. However, scene has also been defined as "A place, with the people, objects, and events in it, regarded as having a particular character or making a particular impression" (Dictionary, 2004). Xiao, Hays, Ehinger, Oliva, and Torralba (2010) also state that the scene and its associated functions as the environment are the combination of the shape and size, constituent materials, and embedded objects. All of these together is perhaps the best way to define scene: the combination of a place and embedded object that structure the visual presentation of that scene. Therefore, all elements and objects presented in the scene create attributes of the landscape photographs. In this study, we will use a beach destination as the scene composition.

Lazebnik, Schmid, and Ponce (2006) describe the way to classify the semantic category of a photograph by recognizing a certain object of interest contained in a photograph which depicts its scene. In landscape photographs, the landscape scene composition in general might contain the sky, horizon, and the surface of water (Luo et al., 2011). These scene attributes can be seas, islands, beaches, or mountains. Friedman (1979) explains that scene recognition begins at the moment humans recognize the diagnostic object in a scene. This stimulates their visual recognition system. For example, when people see the diagnostic objects in a photograph such as ocean water, islands, or the horizon line, these objects might trigger their visual recognition system and recall a beach scene.

Affective and cognitive organism in tourism

Affective and cognitive organisms are two significant factors that have been studied broadly in literature (Gross, 2002; Mischel & Shoda, 1995; Oliver, 1993). Much literature also supports that tourism destinations have both affective and cognitive components (Baloglu & Brinberg, 1997). Decrop (1999) described the cognitive component as the internal process of brain activity which relates to information processing, thinking, believing, and understanding. This cognitive process involves perception, learning, and attitude. On the other hand, the affective component represents the internal process of feelings and emotions of people towards things such as products and travel destinations (San Martín & Del Bosque, 2008).

Tourists respond both affectively and cognitively to a travel destination (Baloglu & Brinberg, 1997) and they are significant factors affecting tourists' satisfaction toward that destination (del Bosque & San Martin, 2008). Russel and Pratt (1980) proposed bi-polar emotional dimensions explaining affect including arousing, exciting, pleasant, relaxing, sleepy, gloomy, unpleasant, and distressing. These emotions seem to overlap and might not fit every situation. Back (2005) narrowed down the affect measurement on his study into feeling good, like, and love which still represents the emotional factors of the affect component.

This research paper focuses on travel for pleasure. The word "pleasure" is defined as "A feeling of happy satisfaction and enjoyment" (Dictionary, 2004). Therefore, pleasure and happiness are related. Mogilner, Aaker, and Kamvar (2012) studied how human' emotions such as happiness affect consumer behavior and their choices. To illustrate, when people feel happy, they tend to select products according to the types of happiness. Some people experience the

arousal activities that make them feel happy, resulting in their choice of excitement products. On the other hand, when some people have peaceful happiness from activities such as meditation, they tend to select products that are related to feeling calm and relaxation. Therefore, happiness can be seen as two dimensions: excitement and calm/relaxation (Mogilner et al., 2012). As a result, these two dimensions can be related to the two main themes of moods: excitement and relaxation and will be used to represent the affective component for a pleasure-tourism context.

The cognitive component, on the other hand, represents how tourists process information relating to their belief, understanding, and perception (Decrop, 1999). In a tourism context, many scholars have studied the tourists' motivations and discovered many factors that lead them to travelling (Huang & Hsu, 2009; Kim, 2007). These factors and motivations appear differently depending on the types of travel destinations and purposes of tourism. For instance, Pearce (2011) has studied tourists' travel motivation, its benefits and constraints to destinations and explained that there are different layers of motivations for travel. To summarize, in the core motivation, tourists travel to destinations for their novelty, to escape and relax from routines, or to enrich relationships with friends or family. In the middle level of motivation, the travelers might go for self-development and meeting locals. Lastly, the outer motivation level includes diverse motives such as romance and social status.

Baloglu and Brinberg (1997) claim that the affective component dominates the cognitive component for tourism destination images. However, we can see that tourists also process travel destination information cognitively and have perceptions about particular destinations. For example, Rittichainuwat, Qu, and Mongkhonvanit (2008) have studied tourists' motivations to revisit Thailand and reported that we can group tourists' motivations into a variety of cognitive

dimensions such as special interests, cultural attractions, good value of food and shopping, tour promotion and currency exchange, Buddhism, and natural attractions.

The nature of a beach destination is considered to be attractive for tourist destinations (Melián-González, Moreno-Gil, & Araña, 2011). This is because beach destinations combine vital elements that present the experience of that place (Chalip & McGuirty, 2004). Many beach destinations have different attributes of sand, water, trees, rocks, mountains or mountain islands, boats, water activities, etc. These attributes can be seen as the pull factors that influence travelers and they cognitively evaluate these external factors of destinations before making a decision to travel (Josiam, Smeaton, & Clements, 1999). Moreover, some beach destinations are very easy to access and cost no money (Chalip & McGuirty, 2004). This can help to support the popularity of beaches as travel destinations. Photography can convey the beauty of the travel destination artistically and enhance colors and lighting on the photographs in an attractive manner (Datta, Joshi, Li, & Wang, 2006). Therefore, tourists can have an aesthetic evaluation by analyzing the elements of beach destinations cognitively and perceive the attractiveness of the beach photographs through the beautiful beach attributes.

Pearce and Lee (2005) studied how to develop the travel approach to tourist motivations and found that novelty, escape/relaxation, and relationships are very important and can be seen as core motivations for tourists to go to travel. However, considering the purpose of travelling for pleasure and the beach as a travel destination, escape and relaxation as the core motivation can be seen as the best fit for the cognitive component of this study. People can relate beach destinations to sun and warm weather which effectively pull tourists to escape from the cold weather that they live in (Josiam et al., 1999). Because beaches geographically portray large

spaces to the horizon, it represents freedom and non-regulation (Andriotis, 2010). Therefore, the freedom of those spatially opened beach destinations allows tourists to perceive escapability from their reality as well. Many scholars also agree that many tourists use escape as a major motivation to be away from their stress, boredom, and daily routine responsibilities that significantly push people to go to travel (Larsen, 2008; Pearce & Lee, 2005; Rojek, 1993).

Color and affective organism

Color tones are varied by their wavelengths, which generate different hues (Babin, Hardesty, & Suter, 2003). Long wavelengths generate warm color tones, such as red and yellow, whereas short wavelengths generate cool color tones, such as blue and green (Kim, 2013). Percy and Rossiter (1983) report that colors can generate affective factors which lead to emotional responses. Warm color tones, such as red, orange, and yellow, are more stimulating compared to cool color tones, such as blue, green, and purple which are more restful (Kaya & Epps, 2004). The effects of colors on mood have been studied extensively. For example, Wexner (1954) studied the degree of hues associated with the emotions of mood tone. His study supported that red, yellow, and orange are associated with excitement and stimulation, whereas blue and green are associated with relaxation, peacefulness, and serenity. Gorn, Chattopadhyay, Sengupta, and Tripathi (2004) studied the effect of colors on mood and perceptions of waiting time. The results revealed that people perceive the waiting time of downloading a website as short. In fact, time passes quickly for them when they are exposed to cool colors background of that website such as blue and green. This is because these cool color tones arouse feelings of calmness and

relaxation. Borgerson and Schroeder (2003) also illustrated that marketers used color, scent, and sound of a destination in brochures and movies to make audiences see that destination as timeless and feel like they are in a fantastic paradise.

On the contrary, warm colors such as orange and red induce feelings of excitement and energy (Yang & Peng, 2008). Similarly, many research studies support that warm and cool color tones affect two different directions of mood. For example, Stone and English (1998) studied the effect of posters and workspace colors on the mood, satisfaction, and performance of workers and reported that warm colors and stimulation are related, whereas cool colors and relaxation are related. Moreover, a dusty blue, which is considered a cool tone color, presents a calm mood and activates the emotions of peace and leisure (Yang & Peng, 2008).

Yildirim et al. (2007) studied the interior colors of a restaurant on consumers' perceptions. The results from this study report that violet as a cool tone provides more positive perceptions of consumers toward the restaurant's environment when compared to yellow. In a similar vein, Kwallek et al. (1997) conducted experimental studies of how interior colors affect the mood and performance of workers. The results of this study show that a red interior directly affects workers to feel higher dysphoria compared to offices with blue or white interiors.

Photographers aesthetically design the combination of colors and tone of photographs to invoke specific moods of viewers through their artwork (Luo et al., 2011). As a result, a pleasing affective response can be generated by specific colors manipulated by a professional photographer (Luo & Tang, 2008). Consequently, although much of the literature shows evidence of colors affecting moods such as arousal, excitement, stimulation, calmness, relaxation, and

peacefulness, it can be seen clearly that those emotional results can be classified into two different perspectives of emotions. Namely, cool colors generate relaxation, which combines feelings of relaxation and peace (Gorn et al., 2004). In contrast, warm colors generate excitement, which can be related to arousal, and stimulation (Dawson, Bloch, & Ridgway, 1990). Moreover, a beach photograph destination can represent both primary purposes of travelling: the calm/relaxation of the beach and the excitement of water activities. When combining beach photographs with color tones, we then hypothesize that:

H1: The warm color tone in beach photographs elicits more excitement than the cool color tone in beach photographs

H2: The cool color tone in beach photographs elicits more relaxation than the warm color tone in beach photographs

Color and cognitive organism

Professional photographers learn to be patient to find the right location and time to take good photographs (Simon, 2011), because different times of day can portray the different color tones of photographs. Moreover, light is constantly changing and affecting results of photographs (Simon, 2011). For example, a beach photograph might portray the green and blue color of the water and the clear blue sky during the day time and change it to pink and orange of sunset during the evening time. The colors of the sky can also facilitate how people can see and understand the photograph differently, resulting in the way of using photographs to manipulate

viewers (Gallagher et al., 2004). Consequently, colors influence the way things are cognitively seen.

Many beach destinations present 'sun, surf, and sand' and promote the warm weather of their destination (Josiam et al., 1999). When tourists see 'sun, surf, and sand', they are pulled to the destination with the perception of escape from the cold weather or their everyday environment. Although cold and warm weather are different constructs from cool and warm colors, this idea can reflect how photographs can influence tourists cognitively and trigger their travel motivations.

Photographs portray realism and nature and have the ability to make people escape from their own world (Goldman & Papson, 1996). However, the color tones in photographs that trigger that escapability have not been addressed. In addition, there is scant literature on the effect of color tone on perceived escapability. For example, Borgerson and Schroeder (2003) have discussed in their book about how colors can be used to provoke the perception of escapability: "an escape from the everyday could be signaled through the color of fantasy and the fantasy of color was well understood as advertisers, using early forms of color photography, held out promises in vivid hues" (Borgerson & Schroeder, 2003, p. 230). However, we cannot deny that people see colors and can cognitively interpret them as a sign and signal. For example, when we drive on a street and see a traffic light, we cognitively analyze colors from our knowledge and past experience and understand that the red means to stop, the yellow means to be cautious, and the green means to go. Many marketers associate colors with products or items to provoke their consumers' cognitive process. To illustrate, Shankar, Levitan, Prescott, and Spence (2009) have studied how colors and labels affect flavor perception. Namely, one of the result shows that

brown color elicits the perception of chocolate. Colors are also applied on many tools and equipment around us. For instance, most appliances and electronic devices use green or blue to display an on function and red to display an off function. Restrooms also use green to present the availability status and red to present the occupied status. Another obvious example is exit signs in buildings because it seems to be a consensus that exit signs are displayed in red, while entrance signs are green. Braun, Mine, and Silver (1995) also have illustrated that people perceive products and items to be more dangerous and hazardous when they are labeled with yellow, orange, and red. These examples show that it is a socially and globally accepted way to apply colors on signs and signals to generate people's perceptions.

Therefore, we can see how people socially see colors and cognitively perceive meaning in the same patterns. Namely, cool colors such as green and blue refer to availability, freedom, or permission to go and therefore escapability. On the contrary, warm colors such as red and orange refer to unavailability, needing to stop, caution, or exit and therefore the opposite direction of escapability. This distinction between two color tones is interesting when applied to beach photographs which might contain different color tones. Considering for example a promotional Hawaii campaign in which people can see colors as equivalent to fleeing and fantasy (Borgerson & Schroeder, 2003), we then hypothesize that:

H3: The cool color tone of beach photographs elicits more perceived escapability than the warm color tone of beach photographs.

Aesthetic evaluation in photography

Crilly, Moultrie, and Clarkson (2004) have described that people in general have aesthetic impressions. When they see objects, they might subjectively perceive them visually attractive by their aesthetic impression. This can be applied to beach photographs which contain a variety of objects and colors. Therefore, for most people when they see a beach photograph, the first thing that comes to their minds is the beauty of the scene.

Aesthetic judgements can be either positive or negative. This is the function of neuroaesthetic circuits in the human brain (Calvo-Merino, Urgesi, Orgs, Aglioti, & Haggard, 2010). Therefore, when people see stimulus objects, they might judge them aesthetically as attractive/unattractive, beautiful/ugly, or pleasing/unpleasing, etc (Lam & Mukherjee, 2005). Moreover, Calvo-Merino, Jola, Glaser, and Haggard (2008) have explained that neuroaesthetic circuits activate aesthetic judgement, evaluation, and interpretation. These together create aesthetic experiences toward stimuli. When people are exposed to a stimulus, they evaluate the object on two aesthetic dimensions: the intrinsic perceptual properties toward that stimulus such as beautiful or ugly and the response attitude toward that stimulus such as like or dislike.

The aesthetic evaluation of photographs is challenging because some viewers might perceive high quality photographs as abstract concepts (Bhattacharya et al., 2010). However, when focusing on landscape photographs, many aspects of photography techniques, colors and light, and compositions of objects in the photographs can create aesthetic perceptions (Datta et al., 2006). Beach destinations are considered to be landscape figures. These figures have significant roles in photograph shooting because they consist of attractive things that draw

people to travel (Prideaux & Coghlan, 2010). On the other hand, aesthetic experiences can be triggered by artistic objects which stimulate our brain network function to experience that way (Calvo-Merino et al., 2010). Therefore, considering that beach photography is a form of art and it is an artistic object by itself, this can cause tourists who see the photographs to experience aesthetic evaluation.

Andriotis (2010) has explained that a beach destination is a recreational landscape which tourists visit at different times of the day depending on their lifestyle and activities. As the time of day from the angle of the sun affects lighting and colors in photographs (Lalonde, Narasimhan, & Efros, 2010), different times of day that tourist are looking for might be presented in different tones of photographs as well. As a result, different color tones of photographs might attract tourists to visit the destination differently.

Tourists' motivation to travel can be identified to some extent towards the cognitive dimension of the attitude construct(Huang & Hsu, 2009). Many tourists seek beautiful and attractive places to travel. In the tourism industry, beach destinations are considered as one of the most popular travel attractions (Phillips & House, 2009). This is because beautiful scenery and natural attractions are one of the major cognitive factors that draw people to travel to a particular destination (Baloglu & Mangaloglu, 2001). Every destination has unique and different attraction characteristics. Therefore, many travel destinations try to present their attractiveness of the destination to pull people to visit their place. Moreover, tourists also seek beautiful places and perceive them as an important attribute to travel and revisit the destinations (Rittichainuwat, Qu, & Brown, 2001).

Considering people always judge the beauty of a photograph at the first glance when they see the photograph, aesthetic evaluation might be a crucial moderator variable to influence the effect of color tones on affective and cognitive organism. Therefore, these hypotheses are proposed:

H4a: The impact of color tones in a beach photograph on excitement depends on the aesthetic evaluation of that photograph.

H4b: The impact of color tones in a beach photograph on relaxation depends on the aesthetic evaluation of that photograph

H4c: The impact of color tones in a beach photograph on escapability depends on the aesthetic evaluation of that photograph

Visual Style of Processing

Individuals have many different preferences, even when it comes to styles of learning and how one processes information. Some individuals can more efficiently process things verbally, while others have more capacity to process visually (Ramsey & Deeter-Schmelz, 2008). The style of processing has been studied broadly in the literature. For example, Childers, Houston, and Heckler (1985) developed a new processing preference measurement called Style of Processing, which is used to distinguish individuals into visual and verbal styles. The way individuals process information can be considered as a cognitive component which relates to learning, perception, thoughts, recall, and problem solving, resulting in how they make decisions and their performance (Cassidy, 2004). Moreover, Ramsey and Deeter-Schmelz (2008) examined

psychometric properties of this style of processing measurement and introduced the reduced version of this scale by removing some measurement items. They also found that the reliability and factor loading of the measurement might vary depending on each study.

While an individual processes information differently in different cognitive styles, visualizer and verbalizer styles of processing are still examined by researchers and continue contributing to studies in the discipline (Kozhevnikov, Kosslyn, & Shephard, 2005). In our daily lives, we are exposed to both visual and verbal types of information from advertisements, news, products and services, social media, and the Internet. This mass of information tries to communicate its message both in direct and indirect ways to consumers. Therefore, it is challenging and crucial for marketers to comprehend how consumers process the information they are exposed to (Ramsey & Deeter-Schmelz, 2008).

Style of processing is also found to be related to devices that provide information. For example, Bruner and Kumar (2005) studied consumers' acceptance of different types of internet devices and found that consumers who are more visually oriented adopted internet devices more frequently compare to those who are more verbally oriented. Hence, style of processing has more impact on things around us than previously believed.

In a photography context, it is important to consider style of processing as an essential factor that might influence the way people perceive and view photographs. Bruner and Kumar (2005) explained that people who are highly visually oriented tend to use mental imagery in information processing and perceive visual cues of that information better than people who are highly verbally oriented. Moreover, Kozhevnikov et al. (2005) describe a visualizer as a person

who effectively responds to cognitive tasks based on imagery, whereas a verbalizer is a person who responds based on verbal analytic strategies. Therefore, we are likely to process information regarding to its modality either as visual or verbal type of information (Bruner & Kumar, 2005). Using photographs as the main stimulus in this study, it seems that style of processing might influence how people respond to these photographs. Therefore, these hypotheses are proposed:

H5a: The impact of color tones of a beach photograph on excitement depends on an individual's style of processing.

H5b: The impact of color tones of a beach photograph on relaxation depends on an individual's style of processing.

H5c: The impact of color tones of a beach photograph on perceived escapability depends on an individual's style of processing.

Internal Organisms

As mentioned earlier in the affective and cognitive organism section, a lot of literature support that tourists can process stimuli both affectively and cognitively. The cognitive dimension can be illustrated. When tourists see destinations' attributes, they evaluate those destination impressions (Prayag, 2009). On the other hand, tourists also have their emotional feelings toward those destinations as the affective dimension (Boo & Busser, 2006). However, the relationship between cognitive and affective dimensions vary depending on each study. For example, Baloglu and Brinberg (1997) report that travel destinations present their affective images distinctly and therefore, they can be studied as the affective dimension separately from

the cognitive dimension. Boo and Busser (2006) state that cognitive reaction influences affective responses and resulting in the causation that the affective evaluation depends on cognitive evaluation. Moreover, San Martín and Del Bosque (2008) conclude that tourists' destination image is more heavily affected by a cognitive image than an affective image.

Yuksel, Yuksel, and Bilim (2010) have studied destination attachment among tourists and found that when tourists have affective attachment to a destination, these affective components will lead to cognitive components such as cognitive loyalty. This might show a different direction of how affective dimension influences cognitive dimension. For example, tourists cognitively evaluate their experiences toward travel destinations and produce emotional perspectives (del Bosque & San Martin, 2008). Excitement, relaxation, and escapability are considered as push factors for tourists to travel (Horneman, Carter, Wei, & Ruys, 2002). Therefore, the hierarchy of these motivation factors might be uncertain. Tourists' psychological motivations such as escapability significantly construct affective image such as excitement toward travel destinations (San Martín & Del Bosque, 2008). However, as mentioned earlier, the relationship between affective and cognitive dimensions are arguably bidirectional (Johnson & Grayson, 2005). In the same vein, McCleary, Weaver, and Meng (2005) describe that escapability can go both directions. For example, some tourist might escape from their personal lives by seeking a new destination, where as some tourists might seek a new destination by escaping their personal life. Perceived escapability is one of the core motivations that push tourists to travel (Yoon & Uysal, 2005). Therefore, this motivation might be derived from the emotional forces such as excitement and relaxation as well.

In these options, the researcher decided to justify that affective component influences the cognitive component. Therefore, for the beach destination, tourists might see a beach photograph and feel excitement or relaxation. These emotional effects might trigger an opportunity to escape from their routines and seek a vacation. Formica and Uysal (1995) investigated tourists motivations and used an escape seeking dichotomy which is presented by the excitement factor. This study shows that excitement might result in tourists' perceived escapability. Moreover, individuals might seek their personal rewards such as relaxation that leads to motivation to escape from their routines from the daily world (McCleary et al., 2005). We can see that both components of the affective dimension can evidently be antecedent for the cognitive component for beach travel. Hence, these hypotheses are proposed:

H6a: Excitement influences perceived escapability

H6b: Relaxation influences perceived escapability

Affective and Cognitive Organisms and General Attitudes

We have discussed in the previous section that colors and objects are attributes presented in travel destinations. These attributes become external stimuli that generate pull factors and draw tourists to visit the destinations (Josiam et al., 1999). However, when stimuli trigger internal organisms, the two dimensions of information processing are presented: affective and cognitive organism (Zajonc & Markus, 1982). The effects of affective and cognitive components on tourism have been studied broadly in the literature. For example, Pike and Ryan (2004) have explained how to cognitively develop alternative information and affectively

evaluate that information and then use it as a tool to analyze destination positioning. Cognitive and affective organisms also play a significant role influencing tourists' satisfaction (del Bosque & San Martin, 2008). To elaborate, researchers have tested the impacts of preconceived destination image on tourists' expectations and loyalty and concluded that expectations and emotions significantly influence tourists' satisfaction.

This section will discuss how affective and cognitive organisms affect general attitude. Attitude has been studied broadly in the literature and played an indispensable role in the social psychology discipline (Petty & Brinol, 2010). Attitude can be explained as the predispositions to respond to person, objects, or issues as like or dislike which influences the behavior of that person (Hassanein & Head, 2007). This will be an individual's overall evaluation and becomes a general view as positive or negative and favorable or unfavorable toward those things. Therefore, people make choices about everything from purchase decisions to health and security based on their attitudes which help to determine the outcomes in a variety of results (Petty & Brinol, 2010). Although the attitude concept includes both cognitive and affective, sometimes researchers view it as unidimensional by referring only to the affective dimension (Ajzen, 1991). However, Altmann (2008) stated that "the concept of attitude is vaguely defined in the literature" (p.144), and finally concluded that attitude has all affective, cognitive, and behavioral dimensions.

Affective and attitude have been studied extensively in the literature. For example, Kim and Morris (2007) investigated consumers' attitude toward product-trial and found that the affective construct had significantly greater influence on their attitude compared to the cognitive construct. As a result, when consumers try a product, they respond affectively and form an

attitude toward that product. Huang and Hsu (2009) studied the effects of travel motivation and attitude on intention to revisit a travel destination. Their study illustrated that affective factors such as pleasant and enjoyment are internally related to attitude variables.

This study uses excitement and relaxation as affective components to represent travel for pleasure. The relationship between excitement or relaxation and attitude have been tested in many studies (Al-Rafee & Cronan, 2006; Faseur & Geuens, 2006; Notbohm, 2010). For instance, Falconer (2011) has qualitatively and narratively interviewed and studied backpacker women and explained that those female travelers also seek excitement on their journeys. This excitement can be in any form or situation such as new places and new activities. This excitement seeking can be applied in many types of destinations. For example, some tourists might prefer to visit a theme park because it arouses a feeling of excitement, resulting in the satisfaction of visiting the travel destination (Bigné, Andreu, & Gnoth, 2005). Excitement is also a significant push factor for travel. Some travelers decide to go to a beach destination to seek adventure and excitement (Van der Merwe et al., 2011).

On the contrary, some tourists might seek the relaxation of sunshine, soothing waves, and smooth sand and prefer beach destinations as a travel vacation in order to have good opportunities to relax on the beach (Josiam et al., 1999). In some groups of travelers, relaxation can be a push factor to travel. This can be seen in senior travelers who see themselves having relaxation and peace as emotional positive motivations. These factors result in their intention to travel (Jang, Bai, Hu, & Wu, 2009).

Considering that tourists travel for pleasure and two dimensions of happiness, excitement and relaxation, it is assumed that these components provoke travel for pleasure intentions. Therefore, the following hypotheses are proposed:

H7: Excitement influences attitude toward the travel destination

H8: Relaxation influences attitude toward the travel destination

On the other side of the coin, escapability is one of the most influential push factors that draws tourists to seek opportunities to travel and visit unique destinations (Kim, 2007). Some travelers might select a beach destination as their travel destination because they desire to enjoy the nature that provides the feeling of escapability (Klenosky, 2002). Some tourists might desire to travel to escape from their boredom and routine of their world, which can be seen as a significant push factor to motivate people to travel (Pearce & Lee, 2005; Rojek, 1993). This notion might be fulfilled when tourists see a destination that allows them to escape from their daily life. As a result, we can see perceived escapability as a significant travel motivation. Huang and Hsu (2009) also conclude that motivation is identified as a cognitive dimension of attitude. Therefore, the hypothesis is proposed:

H9: Perceived escapability influences attitude toward the travel destination

Attitude and Behavioral Intention

The attitude construct is studied broadly in the social psychology context. This construct has a strong relationship with behavior so that it can predict individuals' behavior, and affects people to behave in a certain way (Di Martino & Zan, 2011). Individuals' attitudes determine their behavioral intentions and also influence their performance (Hassanein & Head, 2007). Therefore, it is important to see how the attitude affects an individual in the tourism context.

Jalilvand, Samiei, Dini, and Manzari (2012) have studied the relationship among electronic word-of-mouth, destination image, attitude toward destination, and travel intention of tourists in Iran. The results show that tourists' attitude toward a destination has significant impact on their intention to visit the travel destination. In a similar vein, Ryu and Jang (2006) have investigated perceptions and attitudes of tourists toward a local cruise line at a travel destination. As a result, the significant relationship between attitudes to intention to visit the destination was found, meaning that the attitude plays a crucial role in predicting behavioral intention of tourists to travel. Therefore, this hypothesis is proposed:

H10: Attitude toward the travel destination influences intention to visit the destination

From all constructs supported by literature, we can demonstrate the relationship and causation between each construct. Figure 3 illustrates the conceptual framework of this study. All constructs, relationship directions, and hypotheses are presented.

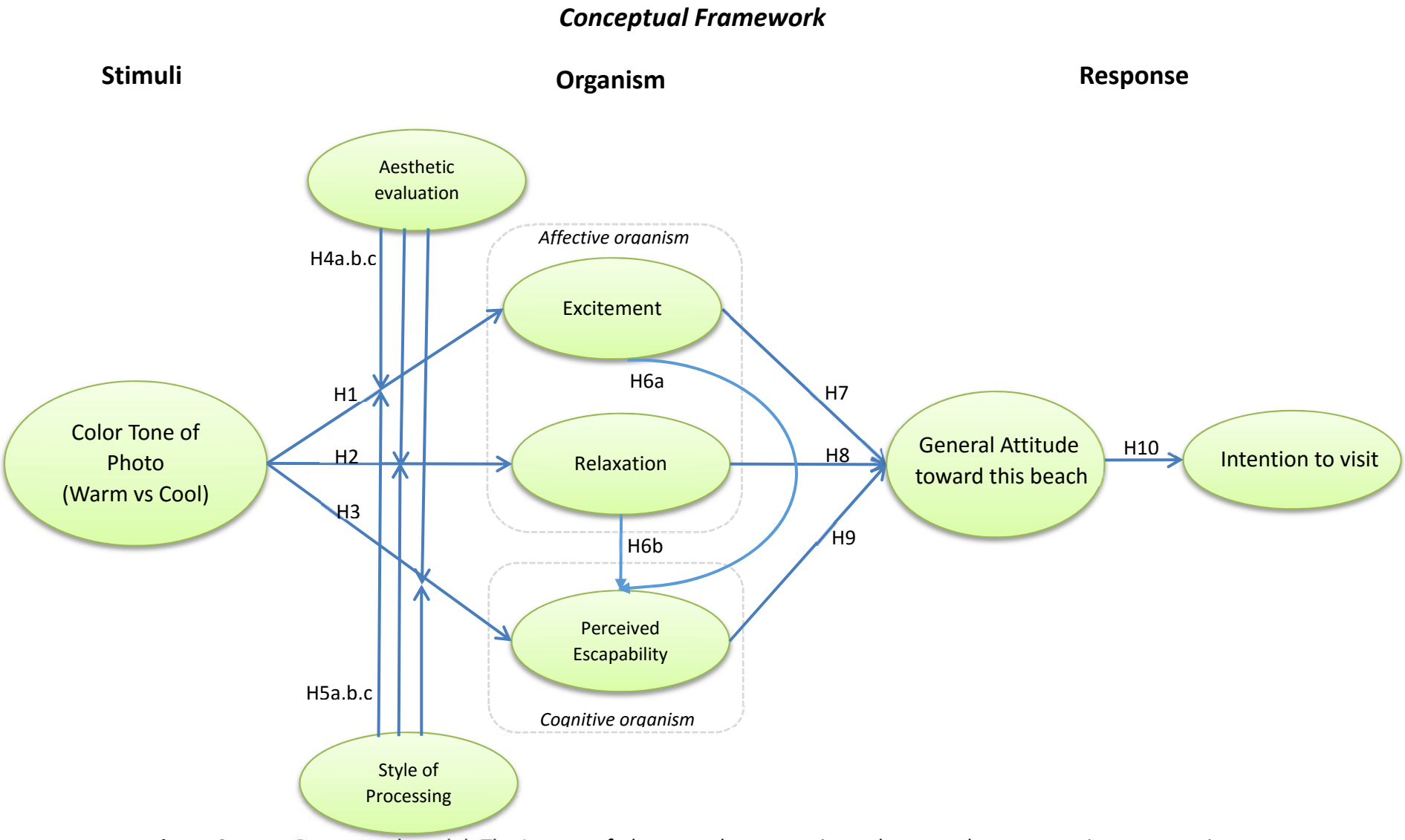

Figure 3: Conceptual model: The impact of photography on tourism: photography construction perspective

CHAPTER 3

METHODS

This chapter explains the methodology using in this study. Research instruments, sample, and data collection for both pre-test and main study are addressed. The pre-test detail and its initial analysis are also elaborated on the purpose to define the best stimuli to use in this study. All the questionnaires, research process, and methodology of this study were reviewed and exempted by the University of Tennessee Institutional Review Board prior to research implementation for both pre-test and main study. The approval document is enclosed in the appendix.

Instrument

In order to see contents of beach photographs in the real tourism market, the researcher conducted a content analysis from ten well-known travel agent websites. Thailand is selected as a destination country because there are many beautiful natural beaches (Warnick, Bojanic, & Siriangkul, 2005). These beaches have been selected and presented worldwide not only in the tourism industry, but also in the entertainment business that presents beaches in Thailand as a location in movies (Cohen, 2005). For example, The Man With The Golden Gun movie (1974) also known as James Bond 007 starring Roger Moore took place in Koh Tapu beach, Cutthroat Island movie (1995) starring Matthew Modine took place in Maya beach, and The Beach movie (1997) starring Leonardo Di Caprio took place in Maya beach, (Law, Bunnell, & Ong, 2007). The

entertainment industry provided an opportunity for beaches in Thailand to be known and Thai tourism also promotes beach destinations continuously. As a result, beach destinations make resorts and tourism grow rapidly (Smith, 1992). The researcher then studied the travel websites that advertise Thai tourism. The top ten popular websites that show beach destinations in Thailand were selected: zicasso.com, lonelyplanet.com, Tourismthailand.org, tripadvisor.com, kensingtontours.com, buffalotours.com, diethelmtravel.com, sunleisureworld.com, asiatranspacific.com, and remotelands.com. Every photograph that appeared in each website was used to analyze its attributive elements that are presented in the photograph.

An experimental study will be conducted to meet the study purposes. The researcher will select a photograph of a travel destination. Among many options of scenery photographs, a beach scenery photograph will be selected as the main experimental stimulus in this study. The beach scenery photograph will be selected for this study for two main reasons. First, the beach scenery image can willingly evoke mental imagery of participants (Miller & Stoica, 2004). Second, the beach photograph can represent the image of travel for pleasure.

Development of Photographs

The setting of aperture, exposure time, and ISO in a camera affects the quality of photographs and they are embedded as metadata in a digital image (Ke et al., 2006). Therefore, the researcher carefully selected the high quality photographs with the harmonized cool color tones from the beach photograph collections taken in Thailand. The cool color tones photograph was used as the starting photo because most cool tone color photographs were taken during the

day time with more lighting and low ISO in a camera. This allows the researcher to manipulate its color tones for study purposes. The selected cool color tone photograph is illustrated in Figure 4.

Figure 4: The selected cool color tone photograph

The researcher carefully controlled the confounding variables such as photography composition, objects in a photograph, and photography perspectives by using identical photographs. This cool tone photograph was duplicated and its color tones were graphically manipulated to a warm tone photograph and will be used for all sample groups. All photographs

were professionally edited by using graphic software such as Adobe Photoshop and Adobe Light Room in order to test color tones as the situation/ hue composition.

Figure 5: Example of warm color tone beach photographs

To elaborate on this photo editing process, the researcher studied the nature of warm tone photographs by collecting 54 beach photographs available online. The example of warm color tone beach photographs is illustrated in figure 5. This number of photographs is sufficient to portray attributes of warm tone photographs. Namely, the same pattern of attributes in many warm tone beach photographs are found such as lighting, color, and shadow.

The lighting in a warm tone comes directly from the sun which is the main source of light (Lynch & Livingston, 2001). This lighting source is in the low angle of the horizon and it is either in a position in the front of the camera or behind the camera. This lighting makes objects in a photograph look darker and at the same time it generates shadow in a photo. This is a result of the time of the day. Particularly, all warm photographs portray sunset or sunrise time (Luo & Etz, 2002). The colors of a warm tone beach photograph are slightly different but mainly in orange, red, and yellow. However, pink, purple, and blue are also presented in the mixed color tone photographs. Finally, shadow in warm tone photographs is different depending on the angle of the sun and the camera. If the sun is behind the objects, the back lighting will create silhouette images (Bailey & Nelson, 2015). This silhouette type of photographs can be seen in many sunset beach photos.

From these attributes of warm photographs, the researcher consulted with a professional graphic designer and developed warm photographs from the original cool tone beach photograph by using a photo editing software, Adobe Photoshop CC. Consequently, the warm beach photographs were edited in order to have different shades of warm tone such as yellow, orange, red, pink, and the mixed colors, portraying the same as beach photographs seen in real life. The different lighting and shadow styles were also applied to present realistic perspectives. As a result, nine warm photographs were developed.

Then, the expert panel was conducted to finalize the best warm beach photograph that was used in this study. Thirteen professional photographers and digital designers were recruited to provide their opinions and feedbacks of these warm photographs. All different nine warm beach photographs were sent to the experts to select the top three photographs and to provide

opinions on these warm photographs and process of photograph development. Eight professional photographers and three professional graphic designers submitted results and made it a total of eleven experts. The results show good perspectives of color tone, lighting, temperature, and realistic attributes in warm photographs. Finally, all photographs were rated and the top three warm photographs were selected to use for the pretest to finalize the best warm photograph to use in this study. The development of photographs and expert panel results are presented in the appendix. Figure 6 presents the top three rated warm photographs for the pre-test.

Questionnaire development

The researcher developed a self-administered questionnaire from existing reliable measurement items. These measurements were used as a major survey tool to collect data in this study. To illustrate, excitement scales were adopted from Wentzel (2009) and relaxation scales were adapted from Gorn et al. (2004). Aesthetic evaluation scales were adapted from Lam and Mukherjee (2005). Perceived escapability scales are adapted from Kah, Lee, and Chung (2010) as well as visual style of processing scales were adapted from Childers et al. (1985). General attitude scales were adapted from Huang and Hsu (2009). Lastly, the intention to visit the beach destination scales were adapted from Bansal, Irving, and Taylor (2004). These measurement scales were reliable with Cronbach's alpha ranging from .81 to .96 and will be presented with a 7-point-Likert-scale rating ranging from strongly disagree (1) to strongly agree (7), a 7-point-bipolar-scale, and a 4-point-likert-scale. The questionnaire is presented in the appendix.

Figure 6: The top three rated warm photographs for the pre-test

The final four identical photographs with different color tones were presented as the visual stimulus to four groups of participants with a scenario. The four photographs included one cool tone photograph and three top rating warm photographs from an experts' panel. Participants were guided to imagine that they have a vacation to travel for pleasure. Participants were also informed that they do not have to consider cost of travel and their availability for travelling. Although a beach photograph from a beach destination in Thailand was used, the destination location was not revealed and included in the scenario to avoid previous experience and general knowledge about the destination that might be confounding variables of the intention to visit the destination. These photographs and this scenario were presented to participants with survey questionnaires. To prevent a confounding variable, the researcher asked a screening question about the perception of time of day according to the presented photographs to ensure that participants perceive that those photographs were taken at the same time. Manipulation check questions about the presented photograph were added in the questionnaire to identify levels of participants' involvement. As a result, the researcher could justify how carefully participants looked at the stimulus photograph and was able to rule out unengagement cases. The questionnaires were uploaded into Qualtrics survey platform which is compatible with mTurk.

Sample and data collection

Pre-test

In phase one, a pre-test was conducted to find the best warm photograph to use in the main study. This pre-test was conducted with a group of 45 undergraduate students in the Hospitality and Tourism Management Department at a southeastern university to evaluate the research questions and the photographs that will be used in this study. Students were recruited from a classroom to gain extra credit by either participating in a survey or writing a short essay which is considered as equivalent effort. The survey link was sent to participating students so they can complete the survey on their own personal time. The pilot test participants are appropriate for this pilot study because students in the Department of Hospitality and Tourism Management should have general knowledge about destination advertising in the tourism discipline. To increase the sample size for this pretest, the researcher also used Facebook as an additional channel to recruit more participants into this study. As a result, the pretest participants were recruited through a classroom and Facebook during November 16 – 24, 2016. Qualtrics showed 97 participants responding to the survey. From the data set, the researcher performed data screening and four uncompleted surveys were found. Those surveys had more than 10 percent of missing data. Therefore, those four respondents were removed from the data set, resulting in 93 participants in total.

After analyzing the pre-test data, the researcher selected the best warm photograph to use in the main study. This warm photograph was used to compare with the cool photograph version of the same scene. Therefore, one can see clearly how color tones affect the internal

organism variables of the participants. The selected warm color tone photograph is presented in Figure 7.

Figure 7: The selected warm color tone photograph

Main Study

In phase two, the main study, participants were recruited from Amazon Mechanical Turk (MTurk) online survey. This online survey channel allows the researcher to collect data from everywhere in the world (Wright, 2005). As a result, it can generalize the results of this study with a good distribution among different genders, age, education, and locations of participants and be able to represent the whole population. Moreover, the online survey allows the researcher to enhance the sample size of this study. The mTurk platform has become more popular among researchers in part because it contains multinational individuals with diverse incomes and demographic information (Ross, Irani, Silberman, Zaldivar, & Tomlinson, 2010). The

questionnaires were created on Qualtrics which made it possible to set up the questions' appearance. Timers were embedded in to questionnaires in every set of questions in order to manipulate survey takers to finish the questionnaires. The next buttons were configured to appear after an approximate time for each section to prevent participants from mindlessly filling out the survey. The survey link was posted on mTurk to recruit individuals to participate in the survey for $0.75 reward. In this experiment, participants were randomly assigned into one of two groups: warm color tone photograph group and cool color tone photograph group. This step was configured to evenly assign participants until the quotas were completed. Then, the participants were expected to complete the questionnaire according to each type of photograph. There were multiple attention checking questions throughout the survey in order to rule out unengaged participants. Therefore, participants who failed to respond according to the attention checking questions were disqualified immediately. The questionnaires were set to require the complete answers for each question in order to prevent missing data. It was expected that there will be 200 participants for each experimental group. Therefore, the estimate sample size is 400 participants in total, which is considered an appropriate sample size for this study. The survey was available for 14 days from March 7 – 21, 2017 to allow participants to participate in the survey.

Initial Data analyses

Pre-test

The total of participants after removing uncompleted cases is 93. This information is presented in Table 2 below.

Table 2: Descriptive information of different types of photographs

Image

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cool	23	24.7	24.7	24.7
	Warm 1	22	23.7	23.7	48.4
	Warm 2	24	25.8	25.8	74.2
	Warm 3	24	25.8	25.8	100.0
	Total	93	100.0	100.0	

One concern about developing the warm photograph to use in this study is avoiding a confounding variable. Much literature supports that natural color tones of sky and objects in a photograph as a by-product of the angle of the sun to the camera. That means, in reality, the natural different color tones of photographs derive from taking photographs in different times of the day. However, the researcher decided to control the time perception of participants in this study by eliminating participants who rated somewhat disagree and below that the warm photograph was taken during the day time. As a result, 36 participants in the warm tone photograph groups were removed to make 57 usable participants in total. Table 3 presents the final participants in each group.

Table 3: Final descriptive information of different types of photographs

Image

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Cool	23	40.4	40.4	40.4
	Warm 1	11	19.3	19.3	59.6
	Warm 2	13	22.8	22.8	82.5
	Warm 3	10	17.5	17.5	100.0
	Total	57	100.0	100.0	

Although the main purpose of this pre-test is to find the best warm photograph to use in the main study, the results of this pre-test also revealed some important information. One-way ANOVA was performed to compare the mean among different groups of warm photographs. The ANOVA results on Table 4 show that there is no significant mean difference among different groups of warm photographs.

Table 4: ANOVA result of warm photographs

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
excitetot	Between Groups	1.407	2	.703	.385	.684
	Within Groups	56.689	31	1.829		
	Total	58.096	33			
relaxtot	Between Groups	.678	2	.339	.182	.834
	Within Groups	57.613	31	1.858		
	Total	58.291	33			
EscaTot	Between Groups	.269	2	.135	.094	.911
	Within Groups	44.591	31	1.438		
	Total	44.860	33			
Aesthtot	Between Groups	.595	2	.297	.079	.924
	Within Groups	116.337	31	3.753		
	Total	116.932	33			

Hence, the descriptive information in Table 5 will be used to consider the best warm photograph.

Table 5: Descriptive information of warm photographs

Descriptives							
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
excitetot	Warm 1	11	6.0000	1.26984	.38287	5.1469	6.8531
	Warm 2	13	5.5192	1.44143	.39978	4.6482	6.3903
	Warm 3	10	5.6750	1.31788	.41675	4.7322	6.6178
	Total	34	5.7206	1.32683	.22755	5.2576	6.1835
relaxtot	Warm 1	11	5.4091	1.44983	.43714	4.4351	6.3831
	Warm 2	13	5.7436	1.29210	.35836	4.9628	6.5244
	Warm 3	10	5.5500	1.35640	.42893	4.5797	6.5203
	Total	34	5.5784	1.32906	.22793	5.1147	6.0422
EscaTot	Warm 1	11	5.2045	1.21870	.36745	4.3858	6.0233
	Warm 2	13	5.2308	1.38241	.38341	4.3954	6.0662
	Warm 3	10	5.0250	.86963	.27500	4.4029	5.6471
	Total	34	5.1618	1.16593	.19996	4.7550	5.5686
Aesthtot	Warm 1	11	5.6515	1.93140	.58234	4.3540	6.9490
	Warm 2	13	5.4103	1.84919	.51287	4.2928	6.5277
	Warm 3	10	5.3333	2.05480	.64979	3.8634	6.8033
	Total	34	5.4657	1.88239	.32283	4.8089	6.1225

It was expected that the excitement construct will have a high score for warm photographs. The results show that Warm1 photograph had the highest mean score (6.00). In the relaxation construct, it was expected to have the low score for warm photographs. The results of the descriptive table show that the Warm1 had the lowest mean score (5.41). In the escapability construct, it was expected to have a high score. The results show that the Warm2 had a slightly higher mean score (5.23). Lastly, the aesthetic evaluation construct showed that

Warm1 had the highest mean score (5.65). Therefore, from this pre-test result, it is clear that Warm1 represented the best photograph for warm tone color and was used in the main study.

Main study

Descriptive statistics were used to analyze profiles of participants. The relationship among variables will was analyzed by the appropriate statistical tests to achieve the purposes of hypotheses' testing. To illustrate, One-Way ANOVA was utilized to compare the mean between three types of photographs. Multiple regressions were conducted to analyze the relationship among continuous variables including excitement, relaxation, aesthetic evaluation, perceived escapability, and intention to visit the destination. All statistical tests were justified with the significant value at a p-value less than .05. Moreover, structural equation modeling (SEM) was implemented to find causal relationships and examine the fit of this model. All data was input, processed, and statistically analyzed using the latest version of Statistical Package for Social Science (SPSS) software and AMOS.

CHAPTER 4

DATA ANALYSES AND RESULTS

This chapter presents analyses conducted to test the proposed hypotheses in the main study. The results are provided along with statistical information related to the main study. First, the data screening was conducted to remove the uncompleted cases. Next, confirmatory factor analysis (CFA) was used to analyze the validity of the measurement items. Multiple statistical tests were used appropriately regarding the purposes of the hypotheses. Namely, one-way ANOVA was used to compare the mean differences among different types of photographs. Moderator effects were tested by using general linear modelling. Finally, structural equation modelling (SEM) was used to identify relationships between variables.

Data screening

To make sure that data met basic assumptions of analysis of variance (ANOVA) and structural equation modelling, a data screening process was conducted. The combination of Qualtrics and mTurk platforms allows researchers to design and set up questionnaires efficiently. Participants were not allowed to skip questions and only completed responses were recorded into the system for their monetary rewards. Therefore, all completed responses received from the data collection contain no missing data. The researcher also carefully designed engagement checking questions to prevent careless participants from not paying attention to the questionnaires. These cases were automatically rejected from the survey if they failed to answer

attention checking questions correctly. As a result, the unengagement responses were removed from the data set.

The Qualtric system also allows researchers to embed timers for each section of a questionnaire. This timer was configured to activate the “next” button when the approximate times to complete each section were met. This set up helped prevent participants mindlessly answering questionnaires. The researcher also double-checked and monitored the responding time for completing the questionnaire and found it satisfactory.

This study involved color tones of photographs. If participants were color blind, it might affect how they saw the photographs and responded to questionnaires accurately. From the initial 403 responses, the results showed that 8 participants identified themselves as color blind. Therefore, these responses were removed from the data set, bringing the total down to 395 responses.

The outliers for the continuous variables were checked by using both scatter plots and boxplots. Seven cases were detected as the outliers in the boxplots. Figure 8 presents the boxplots for the outliers. Figure 9 presents scatter plots for outliers.

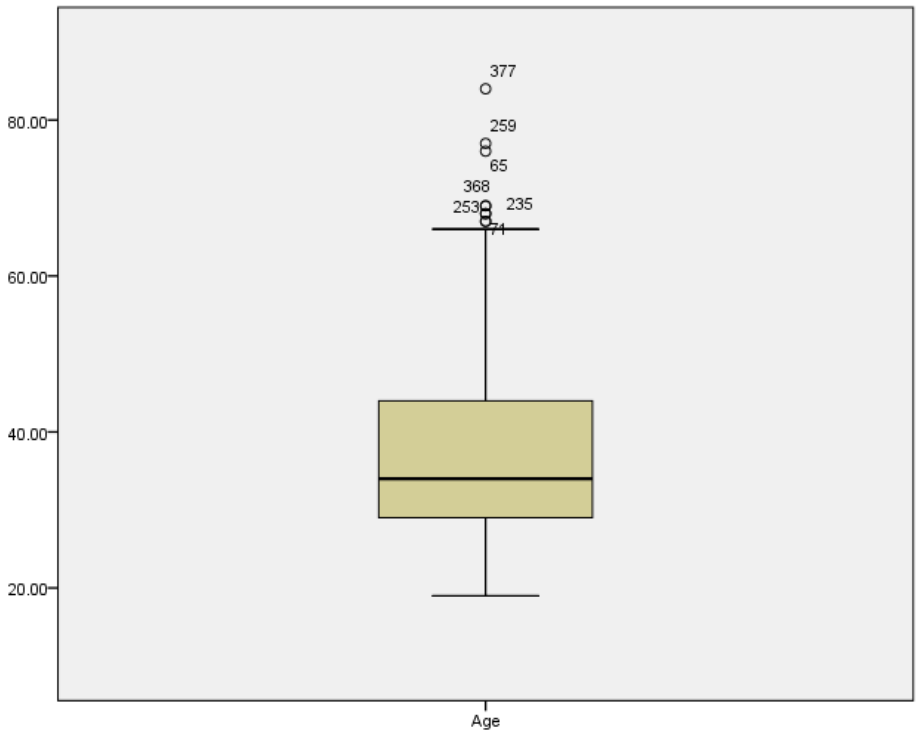

Figure 8: Boxplots for outliers

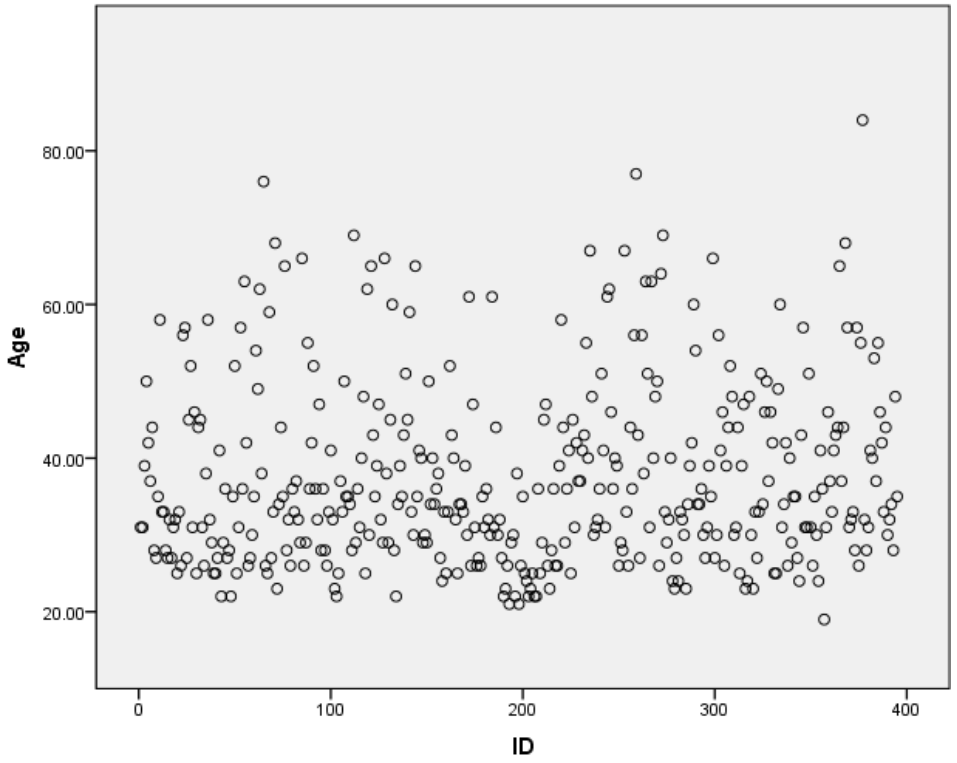

Figure 9: Scatter Plots for outliers

However, even when some outliers are detected, some researchers might find it difficult to deal with them appropriately (Leys, Ley, Klein, Bernard, & Licata, 2013). These outlier observations might be legitimate data and provide good information for the study. Hence, the researcher investigated closely how each identified outlier responded in the questionnaire and decided to remove only the 3 greatest outliers from the data set. As a result, finally 392 samples were used in the main analysis.

An assessment of normality distribution was conducted to identify data distribution. The expected values of skewness and kurtosis are close to 0 but a threshold value between -3 to 3 is satisfactory (Hoyle, 1995). However, some scholars argue that the data can have a normal contribution if the skewness value is less than 3 and the kurtosis value is less than 10 (Yadav & Pathak, 2016). In this study, the mean values of all measurement items ranged from 2.54 to 6.41. Absolute values of skewness ranging from 0.13 to 2.78 and absolute values of kurtosis ranging from 0.02 to 8.55 can be considered normally distributed. Table 6 shows skewness and kurtosis information. Since the kurtosis value might have been high in some measurement items, the researcher paid careful attention on those items in the confirmatory factor analysis (CFA) to make sure that those items were not problematic.

Table 6: Skewness and kurtosis information

		Mean	S.D.	Skewness	Kurtosis
Excitement	Excit1	5.99	1.376	-1.792	3.212
	Excit2	5.71	1.451	-1.448	2.021
	Excit3	5.94	1.361	-1.603	2.591
	Excit4	5.82	1.308	-1.394	2.059
Relaxation	Relax1	6.13	1.137	-1.943	4.845
	Relax2	6.12	1.203	-1.946	4.295
	Relax3	6.33	1.258	-2.388	5.588
	Relax4	6.12	1.143	-1.968	4.948
	Relax5	5.89	1.808	-1.582	1.264
	Relax6	6.41	1.266	-2.602	6.376
Perceived Escapability	Esc1	5.42	1.404	-1.135	1.061
	Esc2	4.89	1.64	-0.621	-0.442
	Esc3	5.36	1.382	-1.081	1.028
	Esc4	5.4	1.448	-0.961	0.587
Style of Processing	SOP1	3.11	0.658	-0.603	1.109
	SOP2	3.17	0.711	-0.517	-0.017
	SOP3	3.1	0.827	-0.652	-0.152
	SOP4	2.89	0.879	-0.434	-0.502
	SOP5	2.96	0.751	-0.192	-0.586
	SOP6	2.54	0.924	-0.125	-0.819
	SOP7	3.15	0.672	-0.445	0.192
	SOP8	2.81	0.781	-0.233	-0.354
	SOP9	3.16	0.693	-0.449	-0.023
	SOP10	2.68	0.954	-0.173	-0.91
	SOP11	3.07	0.654	-0.567	1.088

Table 6. Continued

		Mean	S.D.	Skewness	Kurtosis
Aesthetic Evaluation	Aes1	6.32	1.242	-2.66	7.878
	Aes2	6.37	1.202	-2.783	8.52
	Aes3	6.29	1.266	-2.43	6.268
	Aes4	6.3	1.264	-2.533	6.793
	Aes5	6.35	1.215	-2.773	8.552
	Aes6	6.39	1.219	-2.73	8.001
Attitude	Att1	6.06	1.15	-1.988	5.208
	Att2	6.21	1.106	-2.292	6.598
	Att3	5.47	1.398	-0.991	0.7
	Att4	6.04	1.131	-1.812	4.174
	Att5	6.06	1.183	-1.817	4.073
Intention to visit	Int1	5.28	1.678	-1.079	0.391
	Int2	4.91	1.725	-0.818	-0.239
	Int3	4.67	1.882	-0.561	-0.776

Sample Characteristic

Using mTurk as a channel to collect data in this study allows the researcher to select diverse participants to represent the population for this research purpose. Among 392 participants, slightly more male (n=224, 57.1%) than female (n=168, 42.9%) participated in this study. The average age of the sample was 37.18 years, ranging from 19 to 69 years old. Almost one third of participants were 30 – 39 years old (n=146, 37.2%), followed by 18 – 29 years old (n=112, 28.6%) and 40 – 49 years old (n=72, 18.4%) respectively. Approximate half of sample was white (n=213, 54.3%), followed by Asian/Pacific Islander (n=136, 34.7%) and black or African American (n=17, 4.3%). Around one third of participants' incomes were $20,000 or less (n=155, 39.5%), followed by $20,001 - $40,000 (n=111, 28.3%) and $40,001 - $60,000 (n=66, 16.8%). The majority of participants had college degrees (n=169, 43.1%), followed by graduate degree (n=108, 27.6%) and some college (n=82, 20.9%). Most participants have been to the beach before (n=355, 90.6%) whereas some participants have never been to any beaches (n=37, 9.4%).

When participants were asked if they like to go to the beach for their vacation, the majority of the responses were positive (M=5.94). Participants strongly agreed that they like to go the beach for their vacation (n=158, 40.3%), followed by agreeing that they like to go the beach for their vacation (n=138, 35.2%) and somewhat agreeing that they like to go to the beach for their vacation (n=47, 12%) respectively.

Table 7: Demographic Characteristics

Demographics		Frequencies (n=392)	Percent (%)
Gender	Male	224	57.1
	Female	168	42.9
Age	18 - 29	112	28.6
	30 - 39	146	37.2
	40 - 49	72	18.4
	50 - 59	36	9.2
	60 - 69	26	6.6
Ethnicity	White	213	54.3
	Hispanic or Latino	11	2.8
	Black or African American	17	4.3
	Native American or American Indian	4	1
	Asian / Pacific Islander	136	34.7
	Other	11	2.8
Income	$20,000 or less	155	39.5
	$20,001 - $40,000	111	28.3
	$40,001 - $60,000	66	16.8
	$60,001 - $80,000	34	8.7
	More than $80,000	26	6.6
Education	Less than high school	1	0.3
	High school graduate	32	8.2
	Some college	82	20.9
	College degree	169	43.1
	Graduate degree	108	27.6

Table 7. Continued

Demographics		Frequencies (n=392)	Percent (%)
Have been to the beach	Yes	355	90.6
	No	37	9.4

Table 8: Beach preferences for vacation

Do you like to go to the beach for your vacation?		
	Frequency	Percent
Strongly disagree	4	1
Disagree	5	1.3
Somewhat disagree	14	3.6
Neither agree nor disagree	26	6.6
Somewhat agree	47	12
Agree	138	35.2
Strongly agree	158	40.3
Total	392	100

Hypotheses testing

This study proposed 10 hypotheses. Each one had different structures and used different statistical tests in order to fit their purposes. To clarify, the *H1, H2*, and *H3* compared different types of photographs by using One-way ANOVA to analyze these tests. *H4* and *H5* investigated the role of moderators by using general linear modeling to identify the interaction effects. These hypotheses were tested using SPSS version 23. The rest of hypotheses examined the relationship among variables by using structural equation modeling (SEM). Therefore, the sub model was proposed to conduct the analysis in SEM by using AMOS version 23.

First, in order to test *H1, H2*, and *H3,* the analysis of variance (ANOVA) was conducted. This statistical test compared mean differences among different types of photographs. The descriptive statistical information is presented in Table 9. It can be seen that the two types of photographs distributed evenly (n=196). After seeing a photograph, the cool photograph group responded that they felt excitement (M=5.96, SD=1.07) and the warm photograph group responded that they felt excitement as well (M=5.78, SD=1.25). Both the cool photograph group and the warm photograph group responded that the photograph generated relaxation (M=6.29, SD=0.88 and M=5.96, SD=1.24 respectively). Lastly, the cool photograph group responded higher perceived escapability (M=5.49, SD=1.08) than the warm photograph group (M=5.04, SD=1.26). In order to compare by using ANOVA to indicate whether these means were statistically different or not, basic assumptions for ANOVA were tested on the next step.

Table 9: Descriptive information of excitement, relaxation, and perceived escapability

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Excitement	Cool	196	5.9579	1.06930	.07638	5.8073	6.1085
	Warm	196	5.7768	1.24869	.08919	5.6009	5.9527
	Total	392	5.8673	1.16451	.05882	5.7517	5.9830
Relaxation	Cool	196	6.2874	.87747	.06268	6.1638	6.4110
	Warm	196	5.9609	1.23812	.08844	5.7865	6.1353
	Total	392	6.1241	1.08408	.05475	6.0165	6.2318
Perceived Escapability	Cool	196	5.4949	1.07863	.07704	5.3429	5.6468
	Warm	196	5.0395	1.37562	.09826	4.8458	5.2333
	Total	392	5.2672	1.25537	.06341	5.1426	5.3919

Next, the assumption of homogeneity of variances was tested by using Levene's test. The results show that the test was satisfied for excitement, $F(1, 390)=2.776$, $p=.096$, meaning that there is no significant difference of variances between the individuals in a group and their group's mean (Garson, 2009). However, Levene's tests of homogeneity of variances for relaxation and perceived escapability show significant values, $F(1, 390)=8.590$, $p=.004$ and $F(1, 390)=8.773$,

p=.003 respectively, indicating that the assumption of homogeneity of variances was violated. These Levene's test of homogeneity results mean that both groups' variances are significantly different from their own group means and their population variances are not equal (Nordstokke & Zumbo, 2010). The violation of this assumption might create a type I error, which means that the researcher needs to be cautious in interpreting the results (Garson, 2009). In addition, Al-Jafari (2011) explained that when the test of homogeneity of variances is violated, Brown-Forsyth's robust test of equality of means can be used instead. The test of homogeneity of variances results is presented in Table 10.

Table 10: Test of homogeneity of variances.

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Excitement	2.776	1	390	.096
Relaxation	8.590	1	390	.004
Perceived Escapability	8.773	1	390	.003

After the basic assumptions were tested, the researcher conducted one-way analysis of variance (ANOVA). The results of one-way ANOVA are illustrated in Table 11. *H1* proposes that the warm color tone in beach photographs elicits more excitement than the cool color tone in beach photographs. However, the independent-between-groups ANOVA indicates the difference in excitement between color tones is not statically significant, $F(1, 390)=2.379$, $p=.124$. In fact,

the mean of the cool tone photograph group (M=5.96) was slightly higher than the mean of the warm tone photograph group (M=5.78) but the differences are not statically significant. As a result, *H1* was not supported.

Table 11: One-way ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Excitement	Between Groups	3.215	1	3.215	2.379	.124
	Within Groups	527.012	390	1.351		
	Total	530.227	391			
Relaxation	Between Groups	10.449	1	10.449	9.075	.003
	Within Groups	449.065	390	1.151		
	Total	459.514	391			
Perceived Escapability	Between Groups	20.320	1	20.320	13.300	.000
	Within Groups	595.876	390	1.528		
	Total	616.196	391			

Since the assumptions of Levene's test of homogeneity for relaxation and perceived escapability are violated, we cannot interpret the ANOVA results for these two constructs. However, Brown-Forsythe's robust test of equality of means works well even when the assumption of normality is violated, so it is appropriate here (Brown & Forsythe, 1974). In fact,

the results show almost similar significant values. Brown-Forsythe's robust test of equality of means illustrated in table 12 was used to analyze the results for H2 and H3.

Table 12: Brown-Forsythe's test

Robust Tests of Equality of Means					
		Statistic[a]	df1	df2	Sig.
Excitement	Brown-Forsythe	2.379	1	380.982	.124
Relaxation	Brown-Forsythe	9.075	1	351.425	.003
Perceived Escapability	Brown-Forsythe	13.300	1	369.004	.000

a. Asymptotically F distributed.

H2 proposed that the cool color tone in beach photographs elicits more relaxation than the warm color tone in beach photographs. Brown-Forsythe's robust test of equality of means indicated a significant difference, $F(1, 351.425)=9.075$, $p=.003$. In fact, the mean score for relaxation of the cool tone photograph (M=5.495) was significantly higher than the mean score of the warm tone photograph (M=5.040). This suggests that the cool tone in beach photographs elicits more relaxation compared to the warm color tone in beach photographs. As a result, *H2* was supported.

H3 proposed that the cool color tones of beach photographs elicit more perceived escapability than warm color tones of beach photographs. Brown-Forsythe's robust test of equality of means also indicates a significant difference, $F(1, 369.004)=13.300$, $p=.000$. In fact, the mean score for perceived escapability of the cool tone photograph (M=6.287) was

significantly higher than the mean score of the warm tone photograph (M=5.961). This explains that the cool color tones of beach photographs elicit more perceived escapability compared to the warm color tones of beach photographs. As a result, *H3* was supported.

Moderation effects

Two moderators were proposed in *H4* and *H5*: aesthetic evaluation and visual style of processing. The mean-split classification was performed to categorize groups of participants for aesthetic evaluation (M=6.34, SD=1.11) into either a low aesthetic evaluation (M<6.34) or high aesthetic evaluation(M>6.34) group. Similarly, the mean-split classification was also performed to categorize groups of participants by the criterion of visual style of processing (M=2.97, SD=.43) into either low visual style of processing (M<2.97) or high visual style of processing (M>2.97) groups.

Then, to test moderation effects, the SPSS macro Process (Hayes, 2013) was conducted to investigate the main effects and the interaction effects among related variables. *H4a* proposed that the impact of color tones in a beach photograph on relaxation depends on the aesthetic evaluation of that photograph. Figure 10 and 11 illustrate the results for aesthetic evaluation as a moderator for excitement.

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .4433      .1965     1.0980    31.6354     3.0000   388.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.6514      .3116    14.9268      .0000     4.0387     5.2640
AesHL         .7466      .1729     4.3193      .0000      .4068     1.0864
Image        -.9611      .4026    -2.3873      .0175    -1.7526     -.1696
int_1         .5600      .2306     2.4287      .0156      .1067     1.0133

Product terms key:

 int_1    Image       X     AesHL

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0122     5.8988     1.0000   388.0000      .0156

*************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      AesHL     Effect         se          t          p       LLCI       ULCI
     1.0000     -.4011      .1905    -2.1052      .0359     -.7757     -.0265
     2.0000      .1589      .1298     1.2237      .2218     -.0964      .4141
```

Figure 10: Results for aesthetic evaluation as a moderator for excitement

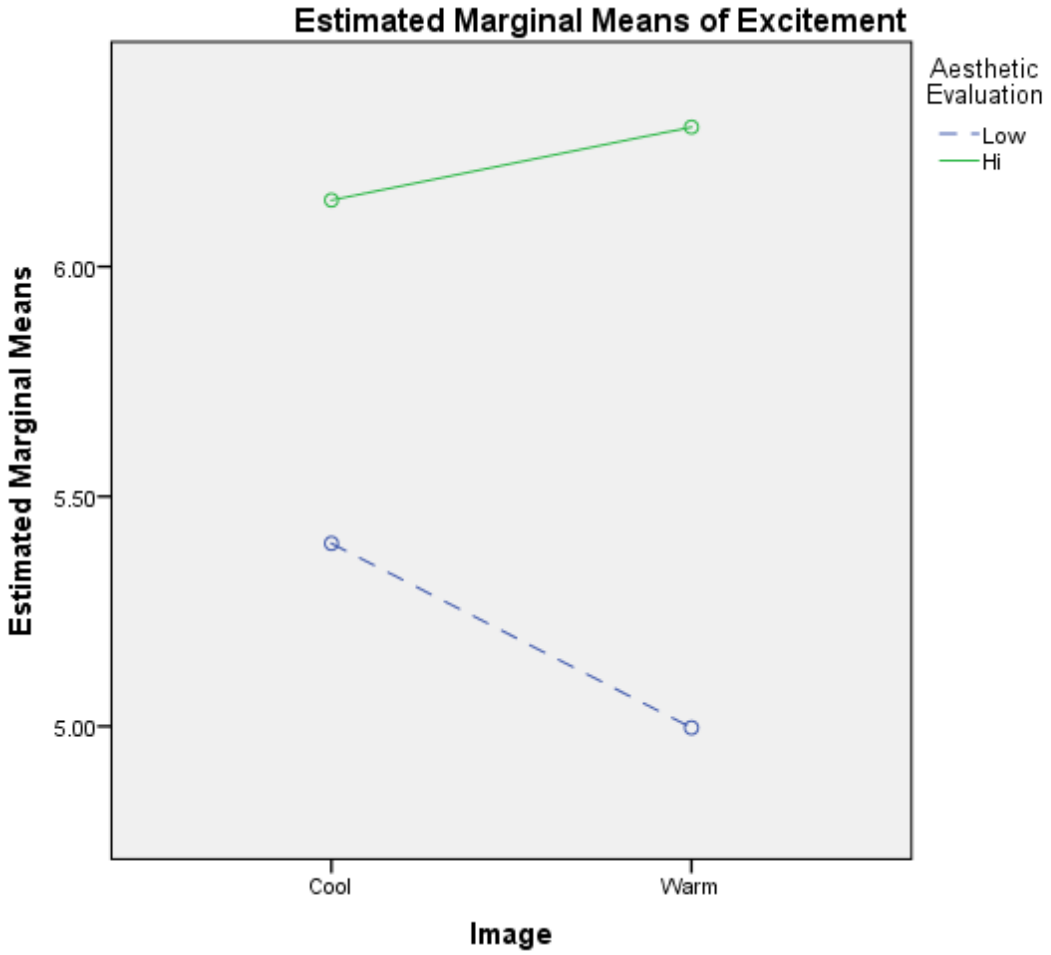

Figure 11: Line graph for aesthetic evaluation as a moderator for excitement

The overall model was shown to be significant $F(3, 388) = 31.64$, $p < .001$, $R^2 = .20$. Aesthetic evaluation, $b = .75$, $t(388)=4.32$, $p < .001$, was a significant predictor of excitement, meaning that for every 1 unit of increase in aesthetic evaluation, excitement increases by .75. The results also indicate a significant interaction effect $F(1, 388)=5.90$, p=.016, meaning that aesthetic evaluation is a significant moderator for people to feel excitement when they see photos. To illustrate, unlike people who have high aesthetic evaluation, people who have low

aesthetic evaluation showed significantly less excitement when they saw the warm photograph compared to the cool photograph. In fact, for people who have low aesthetic evaluation *b* = -.40, *t*(388)= -2.11, *p* = .036, the warm tone color decreases the level of excitement by .40. In contrast, for people who have high aesthetic evaluation, *b* = .16, *t*(388)= 1.22, *p* = .221, there was no significant relationship between the color tones of photographs and the level of excitement. As a result, *H4a* was supported.

H4b proposed that the impact of color tones in a beach photograph on relaxation depends on the aesthetic evaluation of that photograph. The results of aesthetic evaluation as a moderator for relaxation are presented in Figure 12 and 13.

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .5079      .2579      .8788    44.9536     3.0000   388.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.9501      .2788    17.7560      .0000     4.4020     5.4982
AesHL         .7642      .1546     4.9416      .0000      .4601     1.0682
Image       -1.1534      .3602    -3.2024      .0015    -1.8616     -.4453
int_1         .5911      .2063     2.8653      .0044      .1855      .9966

Product terms key:

 int_1    Image       X     AesHL

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0157     8.2101     1.0000   388.0000      .0044

*************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      AesHL     Effect         se          t          p       LLCI       ULCI
     1.0000     -.5624      .1705    -3.2990      .0011     -.8975     -.2272
     2.0000      .0287      .1161      .2468      .8052     -.1997      .2570
```

Figure 12: Results for aesthetic evaluation as a moderator for relaxation

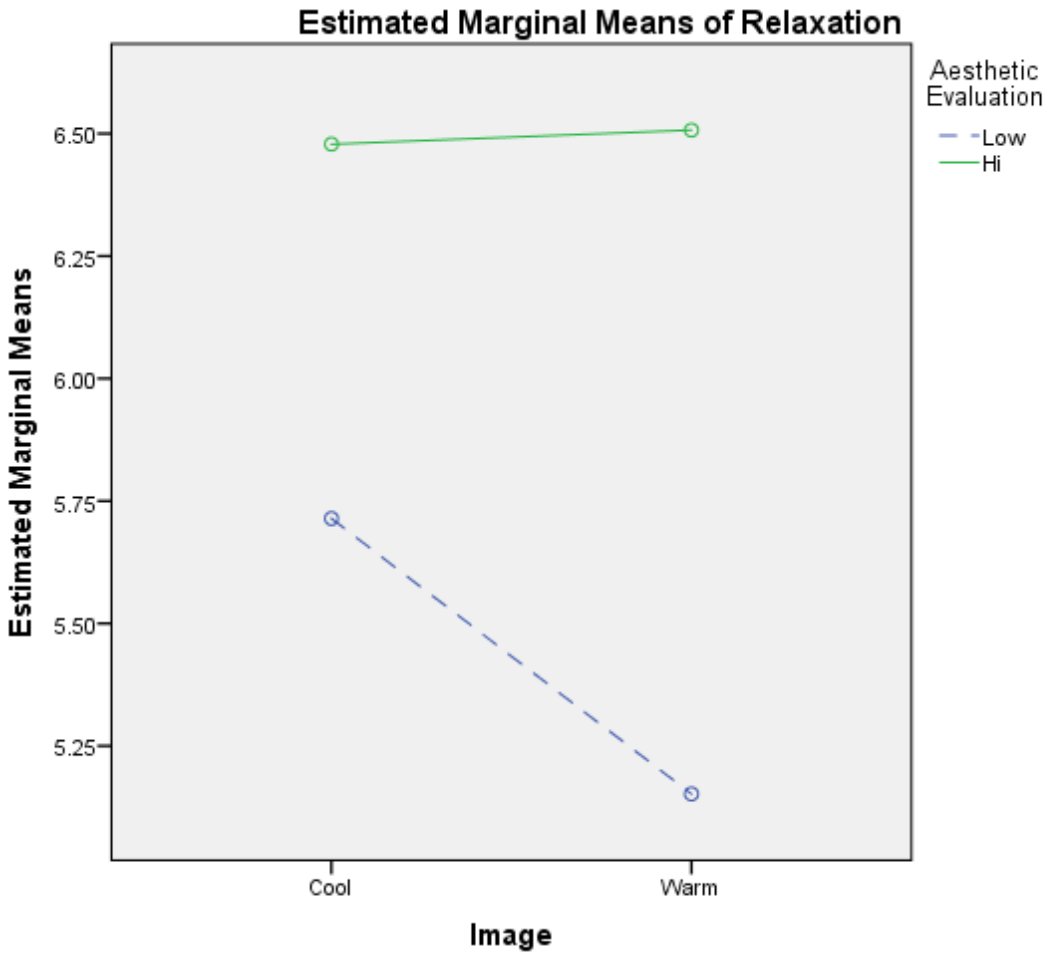

Figure 13: Line graph for aesthetic evaluation as a moderator on relaxation

The overall model was shown to be significant $F(3, 388) = 44.953$, $p < .001$, $R^2 = .26$. Aesthetic evaluation, $b = .76$, $t(388)=4.94$, $p < .001$, is a significant predictor of relaxation. This means that for every 1 unit of increase in aesthetic evaluation, relaxation increases by .76. The results also indicate a significant interaction effect $F(1, 388)=8.21$, p=.004, meaning that aesthetic evaluation is a significant moderator for people to feel relaxation when they see photos. To illustrate, unlike people who have high aesthetic evaluation, people who have low aesthetic

evaluation showed significantly less relaxation when they saw the warm photograph compared to the cool photograph. In fact, for people who have low aesthetic evaluation, *b* = -.56, *t*(388)= -3.29, *p* = .001, the warm tone color decreases the level of relaxation by .56. In contrast, for people who have high aesthetic evaluation, *b* = .03, *t*(388)= .25, *p* = .805, there is no significant relationship between the color tones of photographs and the level of relaxation. As a result, *H4b* was supported.

H4c proposed that the impact of color tones in a beach photograph on escapability depends on the aesthetic evaluation of that photograph. The results of aesthetic evaluation as a moderator for perceived escapability are presented in Figure 14 and 15.

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .4071      .1658     1.3249    25.6994     3.0000   388.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.0425      .3423    11.8100      .0000     3.3695     4.7155
AesHL         .8299      .1899     4.3710      .0000      .4566     1.2032
Image        -.7511      .4422    -1.6985      .0902    -1.6206      .1183
int_1         .2648      .2533     1.0454      .2965     -.2332      .7627

Product terms key:

 int_1    Image       X     AesHL

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0023     1.0928     1.0000   388.0000      .2965

*************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      AesHL     Effect         se          t          p       LLCI       ULCI
     1.0000     -.4864      .2093    -2.3237      .0207     -.8979     -.0749
     2.0000     -.2216      .1426    -1.5540      .1210     -.5020      .0588
```

Figure 14: Results for aesthetic evaluation as a moderator for perceived escapability

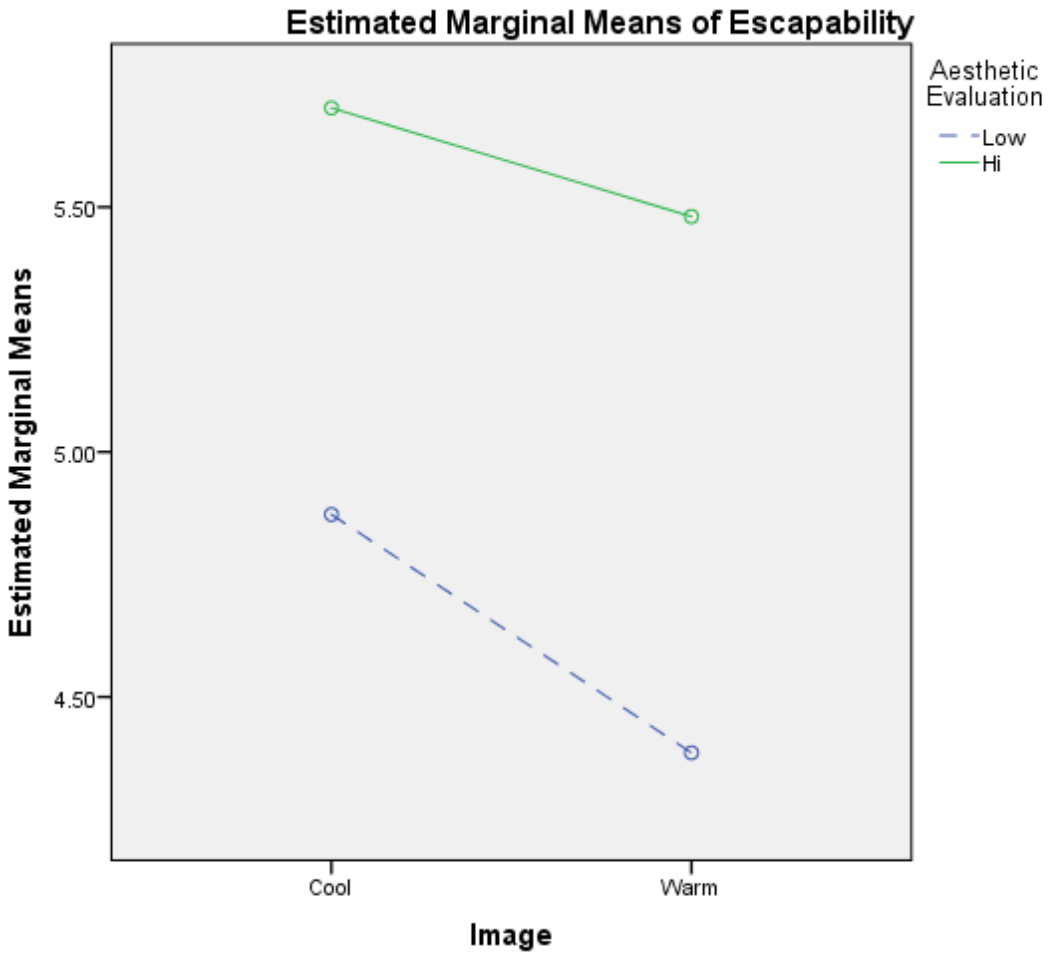

Figure 15: Line graph for aesthetic evaluation as a moderator for perceived escapability

The overall model was shown to be significant $F(3, 388) = 25.699$, $p < .001$, $R^2 = .17$. Aesthetic evaluation, $b = .83$, $t(388)=4.37$, $p < .001$, is a significant predictor of perceived escapability. This means that for every 1 unit of increase in aesthetic evaluation, perceived escapability increases by .83. However, the results indicate a non-significant interaction effect $F(1, 388)=1.09$, p=.297, meaning that the level of perceived escapability associated with different

color tones of photograph does not significantly depend on aesthetic evaluation. As a result, *H4c* was not supported.

H5a proposed that the impact of color tones of a beach photograph on excitement depends on an individual's visual style of processing. The results of visual style of processing as a moderator for excitement are presented in Figure 16 and 17.

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .2541      .0646     1.2783     8.9294     3.0000   388.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.8787      .2700    18.0671      .0000     4.3478     5.4096
SOPHL         .6845      .1634     4.1882      .0000      .3632     1.0059
Image         .2604      .3740      .6962      .4867     -.4749      .9956
int_1        -.2651      .2299    -1.1532      .2495     -.7171      .1869

Product terms key:

 int_1    Image       X     SOPHL

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0032     1.3299     1.0000   388.0000      .2495

***************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      SOPHL     Effect         se          t          p       LLCI       ULCI
     1.0000     -.0047      .1703     -.0278      .9778     -.3396      .3301
     2.0000     -.2698      .1544    -1.7475      .0813     -.5734      .0338
```

Figure 16: Results for visual style of processing as a moderator for excitement

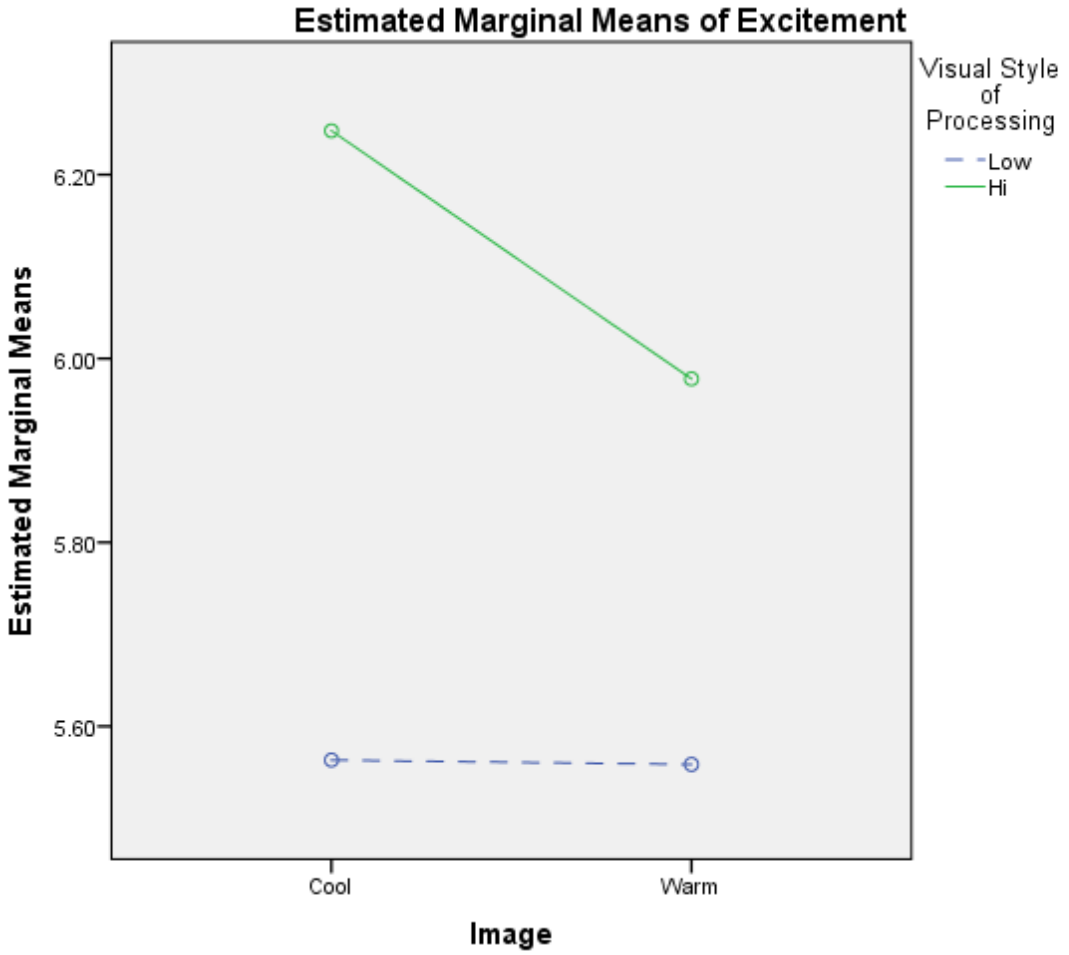

Figure 17: Line graph for visual style of processing as a moderator for excitement

The overall model was significant $F(3, 388) = 8.929$, $p < .001$, $R^2 = .06$. Visual style of processing, $b = .68$, $t(388)=4.19$, $p < .001$, is a significant predictor of excitement. This means that for every 1 unit of increase in visual style of processing, excitement increases by .68. However, the results indicate a non-significant interaction effect $F(1, 388)=1.33$, p=.250, meaning that the level of excitement associated with different color tones of photograph does not significantly depend on visual style of processing. As a result, *H5a* was not supported.

H5b proposed that the impact of color tones of a beach photograph on relaxation depends on an individual's visual style of processing. The results of visual style of processing as a moderator for relaxation are presented in Figure 18 and 19.

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .2407      .0579     1.1157     7.9537     3.0000   388.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     5.6113      .2523    22.2429      .0000     5.1153     6.1073
SOPHL         .4289      .1527     2.8087      .0052      .1287      .7291
Image        -.2406      .3494     -.6887      .4914     -.9275      .4463
int_1        -.0407      .2148     -.1894      .8499     -.4629      .3816

Product terms key:

 int_1    Image       X     SOPHL

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0001      .0359     1.0000   388.0000      .8499

******************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      SOPHL     Effect         se          t          p       LLCI       ULCI
     1.0000     -.2813      .1591    -1.7681      .0778     -.5941      .0315
     2.0000     -.3220      .1443    -2.2318      .0262     -.6056     -.0383
```

Figure 18: Results for visual style of processing as a moderator for relaxation

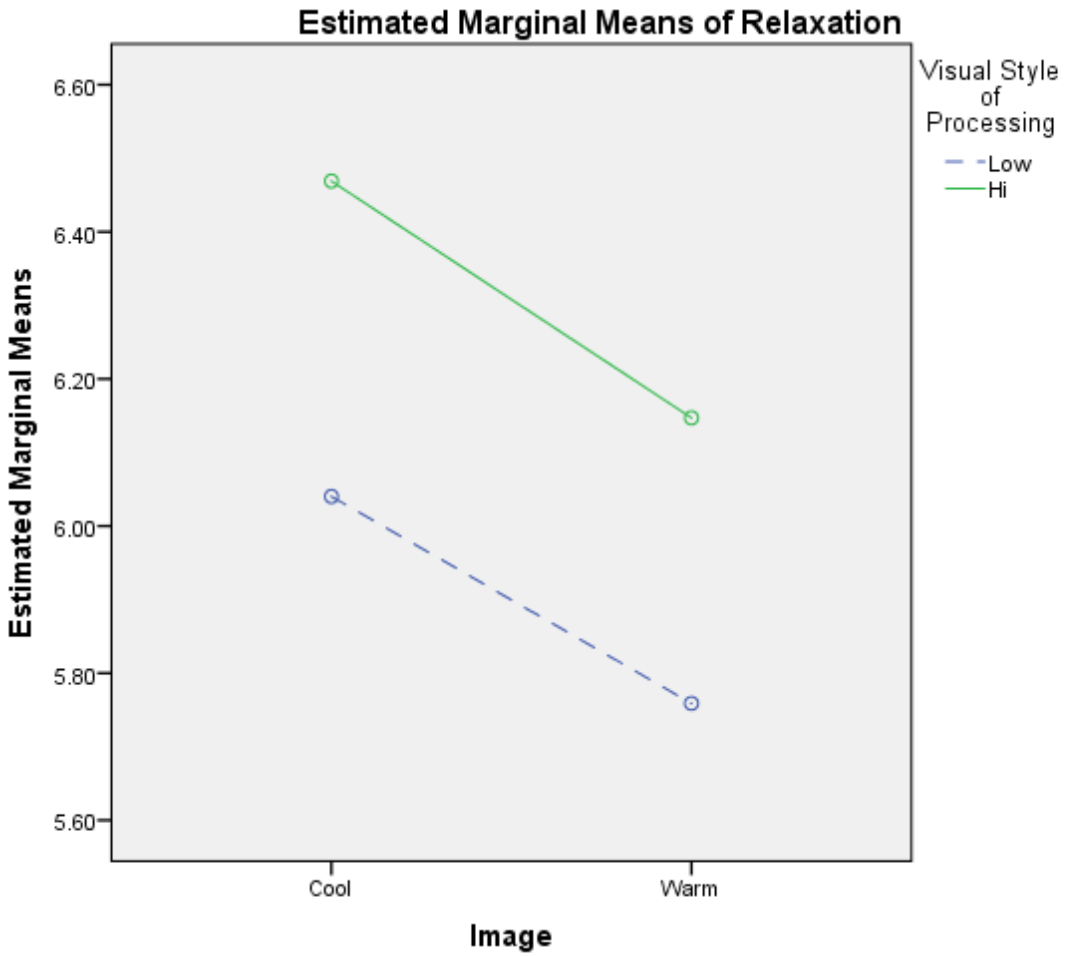

Figure 19: Line graph for visual style of processing as a moderator for relaxation

The overall model was significant $F(3, 388) = 7.954$, $p < .001$, $R^2 = .06$. Visual style of processing, $b = .43$, $t(388)=2.81$, $p = .005$, is a significant predictor of relaxation. This means that for every 1 unit of increase in visual style of processing, relaxation increases by .43. However, the results indicate a non-significant interaction effect $F(1, 388)=.04$, p=.850, meaning that the level of relaxation associated with different color tones of photograph does not significantly depend on visual style of processing. As a result, *H5b* was not supported.

H5c proposed that the impact of color tones of a beach photograph on perceived escapability depends on an individual's visual style of processing. The results of visual style of processing as a moderator for escapability are presented in Figure 20 and 21.

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .3720      .1384     1.3684    20.7671     3.0000   388.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.1086      .2794    14.7059      .0000     3.5593     4.6579
SOPHL         .8793      .1691     5.1997      .0000      .5468     1.2118
Image        -.2181      .3869     -.5636      .5734     -.9788      .5427
int_1        -.1236      .2378     -.5198      .6035     -.5912      .3440

Product terms key:

 int_1    Image       X     SOPHL

R-square increase due to interaction(s):
         R2-chng          F        df1        df2          p
int_1      .0006      .2701     1.0000   388.0000      .6035

**************************************************************************

Conditional effect of X on Y at values of the moderator(s):
      SOPHL     Effect         se          t          p       LLCI       ULCI
     1.0000     -.3417      .1762    -1.9392      .0532     -.6881      .0047
     2.0000     -.4653      .1598    -2.9123      .0038     -.7794     -.1512
```

Figure 20: Results for visual style of processing as a moderator for perceived escapability

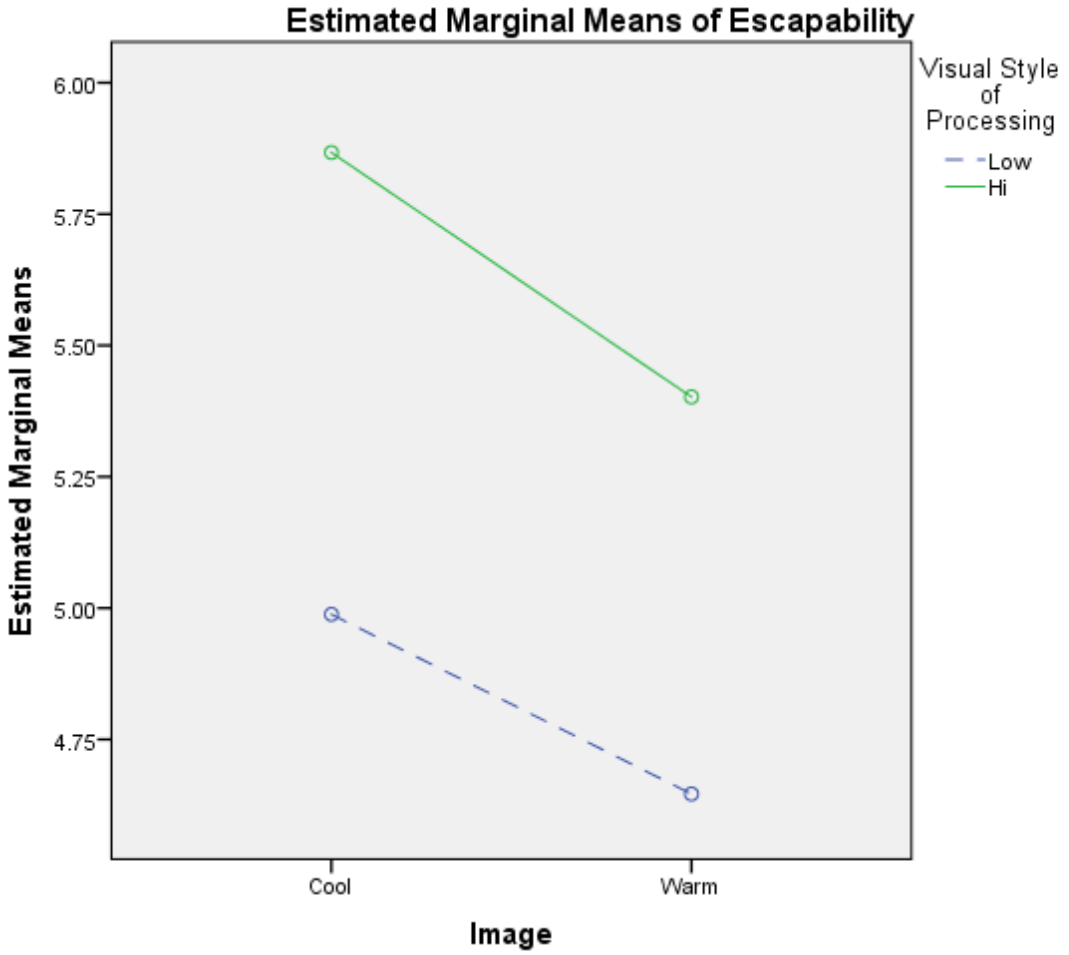

Figure 21: Line graph for visual style of processing as a moderator for perceived escapability

The overall model was significant $F(3, 388) = 20.767$, $p < .001$, $R^2 = .14$. Visual style of processing, $b = .88$, $t(388) = 5.20$, $p < .001$, is a significant predictor of perceived escapability. This means that for every 1 unit of increase in visual style of processing, perceived escapability increases by .88. However, the results indicate a non-significant interaction effect $F(1, 388) = .27$, p=.604, meaning that the level of perceived escapability associated with different color tones of photograph does not significantly depend on visual style of processing. As a result, *H5c* was not supported.

H6 to *H10* propose the causation and relationship among variables. To analyze these relationships, a sub-model was integrated into structural equation modeling (SEM). Figure 22 illustrates the sub-model constructs and their relationships.

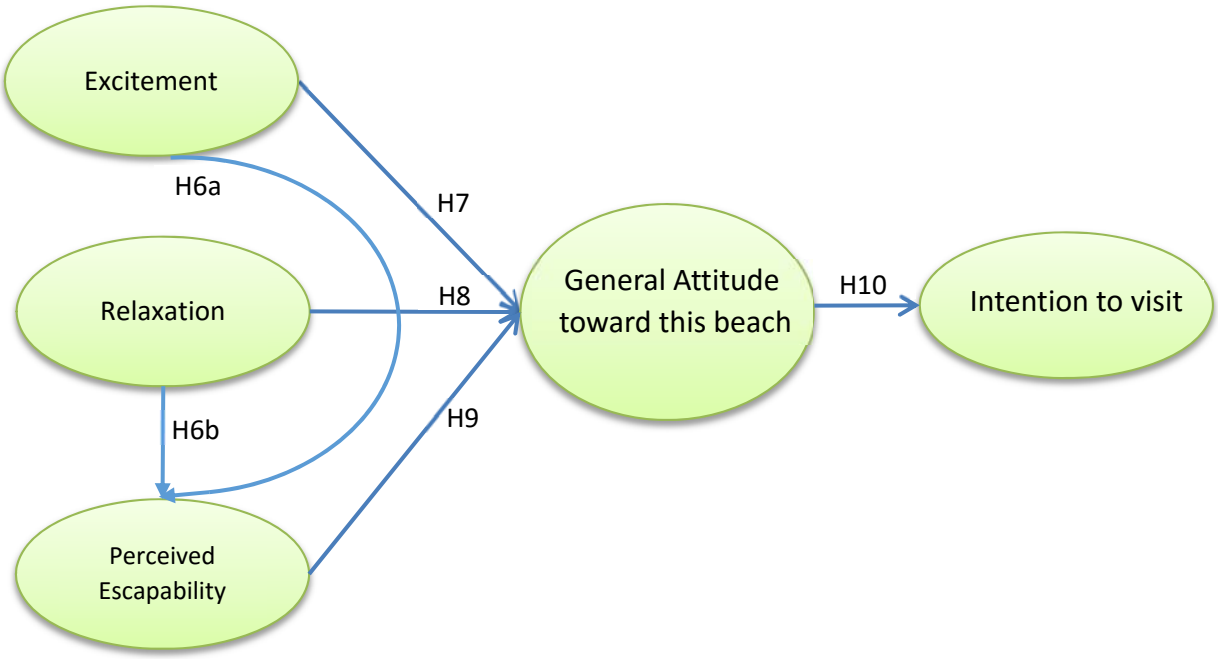

Figure 22: Sub-model for SEM analysis

Applying a two-step process to validate the structures of the constructs and analyze model fit, both a confirmatory factor analysis (CFA) and structural equation modeling (SEM) were conducted correspondingly by using AMOS 23 (Anderson & Gerbing, 1988). The following constructs with their measurement items were input into the system: four items of excitement, six items of relaxation, four items of perceived escapability, five items of attitude, and three items of intention to visit.

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was performed with the original 22 items from 5 constructs using maximum likelihood estimation. This method uses a mean-adjusted chi-square test along with standard errors to estimate parameters (Satorra & Bentler, 2010). Table 13 presents the measurement items with reliability statistics. Deleted items (Relax3, Relax5, Relax6, and Att3) are denoted by ***. As a result, 18 items remain from confirmatory factor analysis.

Using general thresholds as the cutoff criteria for good model fit (Bagozzi & Yi, 1988; Hooper, Coughlan, & Mullen, 2008), the following rules of thumb were used to assess good model fit: root mean square error of approximation (RMSEA) < 0.08; comparative fit index (CFI) > 0.95; Tucker–Lewis index (TLI) > 0.95; p> .05. The initial confirmatory factor analysis reported that the model did not satisfy the criteria (RMSEA= .087: CFI= .918: TLI= .905; p< .001). While factor loading should be above 0.60 (Hair, Black, Babin, Anderson, & Tatham, 1998), some measurement items were below the cutoff value. Therefore, three items were eliminated from the model; Relax3 (.55), Relax5 (.28), and Relax6(.57). The modification indices showed high covariance between Att2 and Att3 (24.85) and the reliability scale test showed that the alpha increased when Att3 was removed (from .93 to .94). Hence, Att3 was eliminated from the model. As a result, the final CFA shows the improvement of model fit to be satisfied (RMSEA=.065, CFI=.967) and the scale reliabilities of relaxation and attitude increase to .93 and .94 respectively. The confirmatory factor analysis results are presented in Figure 23.

Table 13: Initial measurement items

Scale	Reliability	Scale Items
Excitement	.87	Excit1 : Not exciting / exciting
		Excit2 : Not spirited / spirited
		Excit3 : Not imaginative / imaginative
		Excit4 : Not unique / unique
Relaxation	.84	Relax1 : Relaxed
		Relax2 : Calm
		Relax3 : Uneasy (r) ***
		Relax4 : Peaceful
		Relax5 : Tense (r) ***
		Relax6 : Anxious (r) ***
Perceived Escapability	.88	Esc1 : To escape from routine life
		Esc2 : To relieve boredom
		Esc3 : For a change of peace from everyday life
		Esc4 : To relieve daily stress
Attitude	.93	Att1 : Enjoyable
		Att2 : Pleasant
		Att3 : Full of fun ***
		Att4 : Satisfactory
		Att5 : Worthwhile
Intention to visit	.95	Int1 : I am likely to visit the destination after I see the photograph
		Int2 : I will probably visit the destination after I see the photograph
		Int3 : I am certain to visit the destination after I see the photograph.

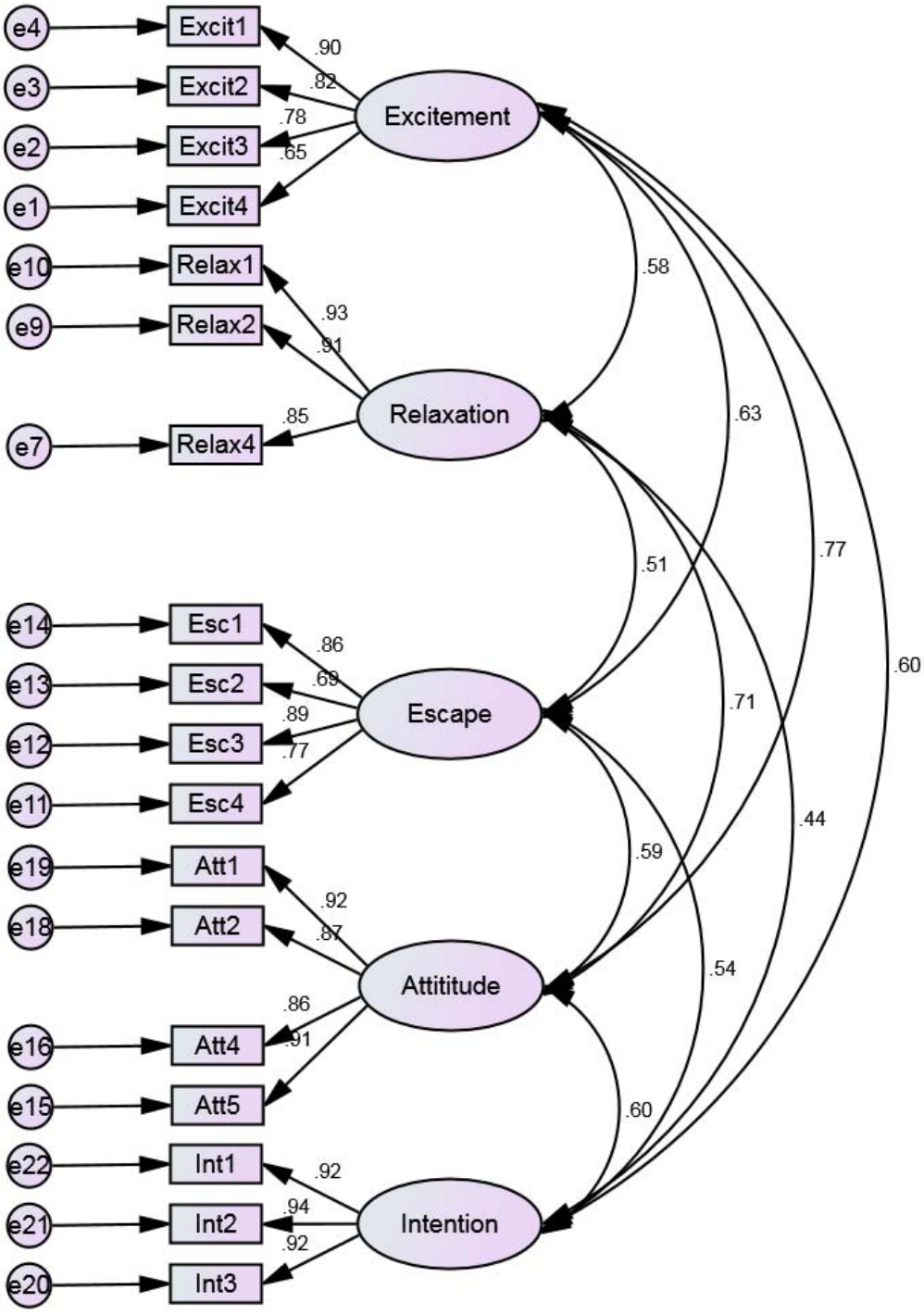

Figure 23: Confirmatory factor analysis

Validity and reliability tests

Finally, validity and reliability tests were conducted. A composite reliability test (CR) was used to examine the reliability of the measurement scales by calculating in conjunction with structural equation modeling and to confirm that each measurement scale was testing the same underlying construct (Peterson & Kim, 2013). The average variance extracted (AVE) was used to examine average convergent validity. The threshold for composite reliability should be .70 or above and the average variance extracted (AVE) should reach or exceed .50 to be considered good (Hair et al., 1998). Discriminant validity was measured by square root of AVE and it is expected to be greater than interfactor correlation on this matrix below which presents all latent variables (Henseler, Ringle, & Sarstedt, 2015). Table 14 shows statistical information of composite reliability (CR), average variance extracted (AVE), and Discriminant validity.

Table 14: composite reliability (CR), average variance extracted (AVE), and Discriminant validity

	CR	**AVE**	**Escapability**	**Excitement**	**Relaxation**	**Attitude**	**Intention**
Escape	0.885	0.660	**0.812**				
Excitement	0.866	0.622	0.609	**0.789**			
Relaxation	0.929	0.813	0.503	0.582	**0.902**		
Attitude	0.943	0.805	0.592	0.767	0.697	**0.897**	
Intention	0.947	0.855	0.544	0.603	0.440	0.606	**0.925**

The results show that all validity and reliability tests were satisfied. Namely, all constructs composite reliability (CR) ranged from 0.89 to 0.95, above the thresholds of 0.70. The average variance extracted (AVE) of each construct ranged from 0.62 to 0.86 which is greater than the thresholds of 0.50. Lastly, the discriminant validity values of each construct were not greater than its diagonal values. Therefore, the results indicate the model does not violate any reliability and validity assumptions, thus this test is at the satisfactory level.

Structural Equation Modeling (SEM)

The final 18 scale items for the 5 constructs were integrated into structural equation modeling (SEM). Directional paths were drawn to identify causations and relationship among constructs according to the proposed research model. Figure 24 illustrates the research sub-model generated by SEM.

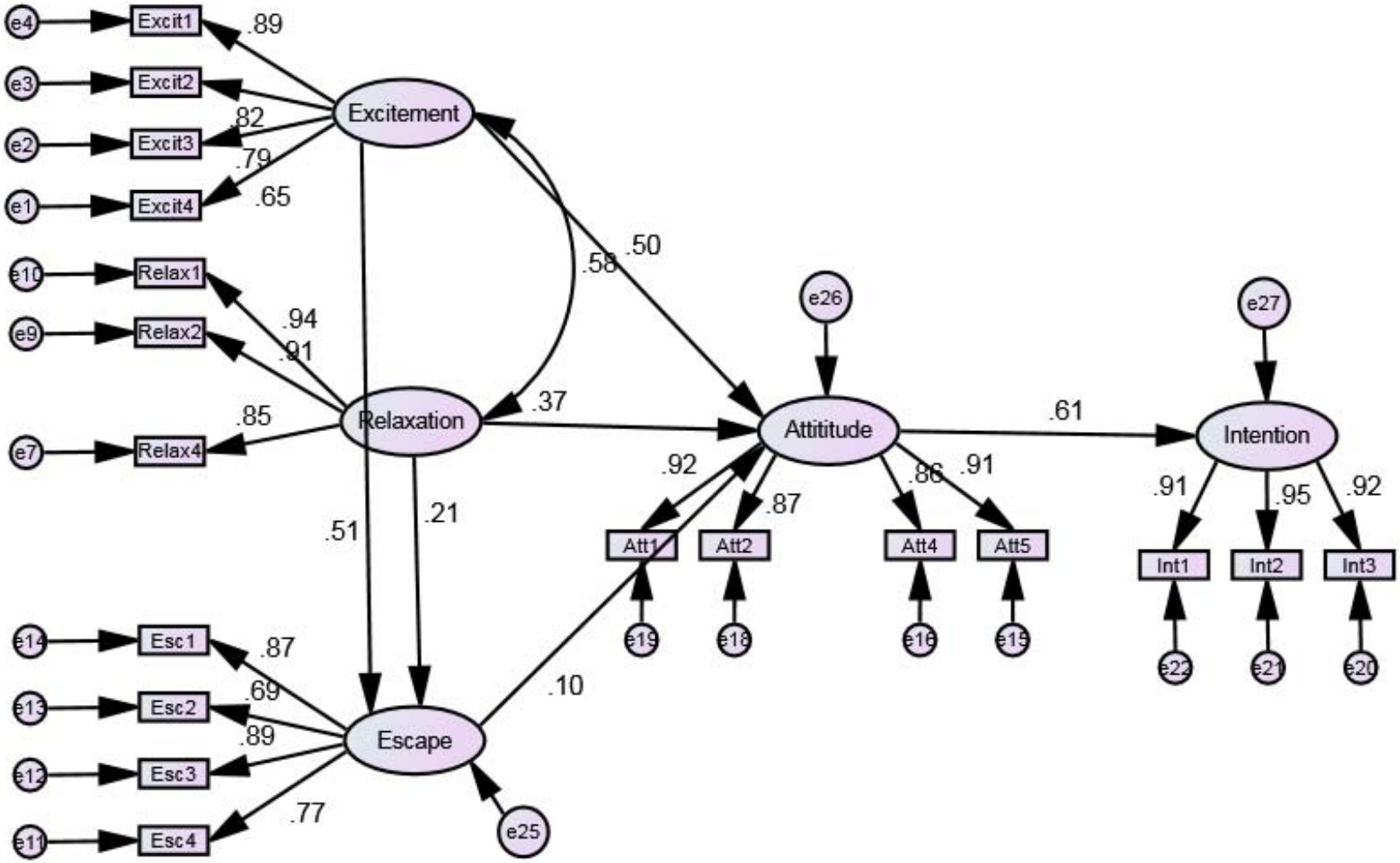

Figure 24: The sub-model from SEM with the standardized regression weight

The structural equation modeling was set up properly according to Petter, Straub, and Rai (2007)'s specifications: "the common practice is to allow exogenous constructs to freely correlate with one another" (p. 643). The independent variables that were not predicting each other were therefore covariated and error terms for endogenous variables were added.

Many statistical values and thresholds have been proposed to identify the fitness of model. For example, Comparative fit index (CFI) is suggested to be above .95 (Hu & Bentler, 1999). Tucker–Lewis index is expected to be above 0.95 (Mercer, Neumann, Wirtz, Fitzpatrick, & Vojt, 2008). Finally, root mean square error of approximation (RMSEA) is recommended to be less than 0.08 in order to consider a good fit of research model (Hooper et al., 2008). The overall model in this study shows satisfactory model fit according to these rules of thumb (CFI=.961, TLI=.954, RMSEA=.069), meaning that this research model best reflects the underlying theory.

Next, the rest of the hypotheses were examined. The results from structural equation modelling (SEM) reveal the causations and relationship among variables. The regression table is presented in Table 15.

Table 15: Regression weight table

			Estimate	S.E.	C.R.	P Label	Hypotheses
Escape	<---	Relaxation	0.237	0.064	3.704	***	H6b
Escape	<---	Excitement	0.512	0.061	8.39	***	H6a
Attitude	<---	Relaxation	0.358	0.043	8.252	***	H8
Attitude	<---	Escape	0.09	0.041	2.182	0.029	H9
Attitude	<---	Excitement	0.438	0.047	9.271	***	H7
Intention	<---	Attitude	0.983	0.075	13.127	***	H10
Excit4	<---	Excitement	0.694	0.048	14.441	***	
Excit3	<---	Excitement	0.877	0.046	19.283	***	
Excit2	<---	Excitement	0.971	0.047	20.478	***	
Excit1	<---	Excitement	1				
Relax4	<---	Relaxation	0.887	0.036	24.653	***	
Relax2	<---	Relaxation	1				
Relax1	<---	Relaxation	0.967	0.032	29.957	***	
Esc4	<---	Escape	0.907	0.049	18.647	***	
Esc3	<---	Escape	1				
Esc2	<---	Escape	0.913	0.059	15.598	***	
Esc1	<---	Escape	0.986	0.044	22.349	***	
Att5	<---	Attitude	1				

Table 15. Continued

			Estimate	S.E.	C.R.	P Label	Hypotheses
Att4	<---	Attitude	0.9	0.036	25.279	***	
Att2	<---	Attitude	0.891	0.034	26.074	***	
Att1	<---	Attitude	0.985	0.032	30.432	***	
Int3	<---	Intention	1				
Int2	<---	Intention	0.947	0.029	32.871	***	
Int1	<---	Intention	0.889	0.03	30.07	***	

*H6*a proposed that excitement influences perceived escapability. The results show that the direct path from excitement to perceived escapability was significant (.51, $p < .001$), meaning that when excitement increases by 1, perceived escapability significantly increases by .51. Hence, *H6a* was supported.

H6b proposed that relaxation influences perceived escapability. The results show that the direct path from relaxation to perceived escapability was significant (.24, $p < .001$), meaning that when relaxation increases by 1, perceived escapability significantly increases by .24. Hence, *H6b* was supported.

H7 proposed that excitement influences attitude toward the travel destination. The results show that the direct path from excitement to attitude was significant (.44, $p < .001$), meaning when excitement increases by 1, attitude significantly increases by .44. Hence, *H7* was supported.

H8 proposed that relaxation influences attitude toward the travel destination. The results show that the direct path from relaxation to attitude was significant (.36, $p < .001$), meaning that when relaxation increases by 1, attitude significantly increases by .36. Hence, *H8* was supported.

H9 proposed that perceived escapability influences attitude toward the travel destination. The results show that the direct path from perceived escapability to attitude was significant (.09, $p < .05$), meaning that when perceived escapability increases by 1, attitude significantly increases by .09. Hence, *H9* was supported.

Finally, *H10* proposed that attitude toward the travel destination influences intention to visit the destination. The results show that the direct path from attitude to intention to visit the destination was significant (.98, $p < .001$), meaning that when attitude increases by 1, intention to visit destination significantly increases by .98. Hence, *H10* was supported. Table 16 summarizes all hypotheses and their results.

Table 16: Hypotheses summary

Hypotheses summary

Hypothesis	**Result**
H1: The warm color tone in beach photographs elicits more excitement than the cool color tone in beach photographs	Not supported
H2: The cool color tone in beach photographs elicits more relaxation than the warm color tone in beach photographs	Supported
H3: The cool color tones of beach photographs elicit more perceived escapability than warm color tones of beach photographs.	Supported
H4a: The impact of color tones in a beach photograph on excitement depends on the aesthetic evaluation of that photograph.	Supported
H4b: The impact of color tones in a beach photograph on relaxation depends on the aesthetic evaluation of that photograph.	supported
H4c: The impact of color tones in a beach photograph on escapability depends on the aesthetic evaluation of that photograph.	Not supported
H5a: The impact of color tones of a beach photograph on excitement depends on an individual's visual style of processing.	Not supported

Table 16. Continued

Hypothesis	**Result**
H5b: The impact of color tones of a beach photograph on relaxation depends on an individual's visual style of processing.	Not supported
H5c: The impact of color tones of a beach photograph on perceived escapability depends on an individual's visual style of processing.	Not supported
H6a: Excitement influences perceived escapability.	Supported
H6b: Relaxation influences perceived escapability.	Supported
H7: Excitement influences attitude toward the travel destination.	Supported
H8: Relaxation influences attitude toward the travel destination.	Supported
H9: Perceived escapability influences attitude toward the travel destination.	Supported
H10: Attitude toward the travel destination influences intention to visit the destination.	Supported

CHAPTER 5

DISCUSSION AND CONCLUSION

This study investigated the effects of photographs especially the color tone differences, in tourism context. Focusing on beach photographs as destinations for traveling, the results presented in the previous chapter supported some of the hypotheses and disconfirmed others. This chapter walks through those results and deliberates on each construct: excitement, relaxation, perceived escapability, roles of moderators, attitude toward travel destination, and intention to visit the destination. Next, contributions and practical implications are discussed, followed by limitations of this study. In addition, recommendations for future research are provided at the end of this paper.

Excitement

Although the researcher proposed that a warm tone color elicits more excitement than cool tones in a beach photograph, this hypothesis was not supported. Much previous research has claimed that warm colors such as red, orange, and yellow increase arousal and provoke excitement (Labrecque, Patrick, & Milne, 2013; Wang, Jia, Yin, & Cai, 2013). They are not wrong. In fact, the results of this study confirmed that participants who were assigned to a warm color tone photograph group agreed that they felt excitement after seeing the beach photograph (M=5.78). However, participants who were assigned into a cool color tone group agreed that the

photographs that they saw made them feel excitement as well (M=5.96). Therefore, the question is, what made people excited when they saw a cool color tone of a beach photograph?

Obviously, this research uses beach photographs as stimuli. Unlike the individual solid colors that have appeared in most of the previous literature (Bagchi & Cheema, 2013; Mehta & Zhu, 2009), a beach photograph contains different color spectrums and shades, used to show the scene of destination with the shades integrated into a harmonized color scheme that is either a cool or warm tone overall, and the scene of beach destination itself (Sauvaget & Boyer, 2010). This mean two variables, color tone and beach destination, are combined in this study as the hue and scene compositions for landscape photograph assessment (Luo et al., 2011). By using the identical photograph and manipulating only color tones, the researcher can control the beach scene and can justify the impact of color tones when comparing it to the same photograph with different color tones. However, when focusing on only one photograph such as a cool tone color photograph alone, the excitement could be either a result of the beach destination itself, its color tone, or both combined. This is the realistic and a main purpose of this study to investigate the impact of photograph in tourism which implies both scene of the destination and its colors. However, the comparison in this study is only on hue composition.

When we see a cool color scheme in a beach photograph, the blue of the sky, the green of the islands/ mountains, and the blue-green of the ocean indicate that the photograph was taken during the day time. Because the angle of the sun reflects an object from the atmosphere and bounces to a camera, that photograph allows us to estimate the time of day that photograph was taken (Lalonde et al., 2010). Therefore, it is explainable that these cool tone colors from the beach photograph trigger our perception that the photo was shot during the day time when

people generally feel more alert, cheerful, and excited (Díaz-Morales, Escribano, & Jankowski, 2015).

In addition, Manav (2007) studied color emotions and color preferences and revealed not only are the color green and blue associated with calmness and relaxation, but also that the color green can relate to excitement, confidence, and purity. This explains that the generation of excitement is not limited to warm color tones; given the right stimuli such as a beach photograph for travel purposes, color tones can also generate excitement.

Relaxation

The hypothesis that the cool color tone of a beach photograph elicits more relaxation than the warm color tone in a photograph was supported. Much literature has explained the impact and contrast between cool and warm colors on relaxation. For example, Stone and English (1998) showed that blue and green produced feelings of relaxation. In contrast when comparing cool to warm colors, Labrecque et al. (2013) concluded that the red hue decreases relaxation. Expanding on existing literature that mostly focuses on individual solid colors, this research explores the color tones in a travel destination setting.

When we see different colors combined in a beach scene, we see a holistic harmonizing of color shades in one stimulus. Yet, the results of this study still confirm that although different colors of cool tone such as navy blue, turquoise, dark blue, light blue, blue green, lime green, etc. are presented in the same beach scene, they still holistically convey the same properties and

generate relaxation as the affective outcome. This is comparable to warm tone colors such as yellow, orange, red, which significantly trigger less relaxation from the same beach photograph.

Perceived escapability

This experimental study provided significant evidence to support the hypotheses that the cool color tone of a beach photograph elicits more perceived escapability than the warm color tone of a beach photograph. Perceived escapability is a crucial cognitive component that motivates people to travel. Many tourists decide to travel because they want to escape from their routines and daily lives (Oh, Fiore, & Jeoung, 2007). Therefore, escapability is one of the core motivations for travel that have been investigated and appeared in many studies (Pearce & Lee, 2005).

The stimuli in this study are cool and warm color tones in a beach photograph. Although there is scant research on how colors affect escapability, we can see in our real world that we perceive colors as symbolic all the time. For example, green is nearly always associated with the concepts of *yes*, *go*, *vacant*, *entrance*, and *on* whereas red is nearly always associated with *no*, *stop*, and *off*. Hence we can see that the theme of freedom and escapability is related to green, which is a cool color, and the theme of strictness and prohibition is related to red, which is a warm color. In fact, escapability can be considered either escape *from* daily life (push) or escape *to* a particular destination (pull) (Oh et al., 2007). This supports and explains why that perceived escapability is triggered when people see a beach photograph. Cool colors in a beach photograph

generate the perception of freedom, readiness to move, and escape from daily life more than warm color tones, which might trigger a stop perception and prevent people from traveling.

Moderators

Two visually related constructs, aesthetic evaluation and visual style of processing, were proposed as moderators of the effects of color in this study. The results reveal both significant and insignificant moderation. These results are discussed separately for each construct.

Aesthetic Evaluation

The researcher proposed that the impacts of color tones in a beach photograph on excitement, relaxation, and perceived escapability depend on the aesthetic evaluation of that photograph. The study results confirm that aesthetic evaluation moderates how likely people are to feel excitement and relaxation when they see a beach photograph, but reject that this aesthetic evaluation influences perceived escapability. When taking a closer look, we can see that aesthetic evaluation successfully moderates excitement and relaxation, which are affective components (Russel & Pratt, 1980) and fails to moderate perceived escapability which is a cognitive component (Pearce & Lee, 2005).

In general, study participants with high aesthetic evaluation rated higher excitement, relaxation, and perceived escapability than people who had low aesthetic evaluations when they saw beach photographs. However, when we focus on the difference between cool and warm

color tones in the photographs, we can see that the impacts of cool color tone and warm color tone photographs on excitement and relaxation are different depending on aesthetic evaluations. Namely, people who had high aesthetic evaluation rated the warm color tone photograph to convey slightly more excitement than the cool color tone photograph. In contrast, people who had low aesthetic evaluation rated the cool color tone photograph to convey significantly more excitement than warm color tone photograph. So, we can conclude that the effects of different color tones in a photograph on excitement and relaxation influence people who have low aesthetic evaluation. Considering aesthetic evaluation as a cognitive component (Cupchik, Vartanian, Crawley, & Mikulis, 2009), this cognitive component relates to perception and analyzing process of individual's brain in order to form a kind of judgement. Therefore, low aesthetic evaluation means low cognitive component. So, it is not surprising that these people responded more in affective components such as excitement and relaxation. However, when we look at perceived escapability, which is also a cognitive component, there is no difference between people who have high or low aesthetic evaluation to see a cool or warm color tone in a photograph and perceive escapability.

Visual Style of Processing

The results of this study reveal a very interesting perspective on visual study. Because the stimuli in this study were photographs, which is an obvious visual stimulus (Wrase et al., 2003), the researcher proposed that how much color tone of a beach photograph arouse excitement, relaxation, and perceived escapability in viewers depends on the viewer's visual style of

processing. The study outcome shows no matter whether individuals have either high or low visual style of processing, they also received the same effects from the different color tones of photographs.

In general, people who are more visually-oriented respond to images with higher excitement, relaxation, and perceived escapability compared to those who are less visually-oriented because they are more likely to use mental imaginary to process information than people who are less visually-oriented (Bruner & Kumar, 2005). However, there seems to be no significant difference in the responses of visual style of processing with regard to color tones. Namely, both high and low visual styles of processing groups rated cool color tone photographs to generate more excitement, relaxation, and perceived escapability than warm tones. As a result, we can conclude that the impact of color tones in a photograph on tourists' excitement, relaxation, and escapability works directly by itself no matter whether tourists have high or low visual style of processing oriented.

General Attitude toward Travel Destination

Because attitude is derived from affective and cognitive components (Ajzen, 1991; Huang & Hsu, 2009), all the results from this experimental study confirmed that excitement, relaxation, and perceived escapability influence general attitudes toward travel destination. To illustrate, when tourists see a photograph and feel excitement, relaxation, or perceived escapability, they also have greater positive attitudes toward the beach destination pictured in the photograph. The relationship between excitement and attitude is the strongest effect among the predictors,

followed by the relationships between attitudes and relaxation and perceived escapability respectively. Hence, the affective dimension is a greater predictor of attitude than the cognitive dimension although both significantly influence attitude. This finding is supported by Ajzen (1991) who explained that the affective dimension has greater influence on attitude so the affective dimension can be seen as unidimensional.

Intention to Visit the Destination

The researcher proposed that attitude toward the travel destination influences intention to visit the destination. As expected, the results of this research confirmed that people who have greater attitude tend to be more likely to have the intention to visit the destination. Because people always determine what they perceive and experience in the form of their attitude (Huang & Hsu, 2009), they respond to behavioral intentions and performances (Hassanein & Head, 2007). Therefore, individuals who intend to visit a travel destination were directly influenced by their attitudes toward that travel destination (Huang & Hsu, 2009), which might be a result of cognitive and affective components derived from visual stimulation. We can conclude that general attitude toward the destination is a significant predictor of intentions to visit destinations.

Contribution

This experimental study illustrates how a photograph leads to affective and cognitive processes, affects attitude toward a beach destination, and then influences tourists' intentions to visit a beach destination for their pleasure vacation. Among a variety of beach photographs,

marketers might feel uncertain about how to select the most effective photograph to use as a crucial marketing communication tool in their advertisements (MacKay & Fesenmaier, 1997). The results of this study shed light on photography construction. Both marketers and professional photographers can manipulate the color tones of beach photographs to include the most effective manner in provoking tourists' intentions to visit a beach destination through two emotional dimensions of pleasure.

Some beach destinations might be positioned as a place for tourists to escape from their daily life and take a rest in nature (Kim, Noh, & Jogaratnam, 2007). Some beach destinations might be presented as a place for tourists to enjoy the excitement of water activities (Park, Reisinger, & Kang, 2008). Positioning beach destinations might be represented through color schemes of photographs as cool or warm tones. This study's findings provide crucial information for marketers to understand the role of color schemes on affective and cognitive factors as the purpose of travelling for pleasure. Therefore, marketers can design the color tones of their destination image for presentation in their advertising, selecting the most effective impact color scheme that provokes tourists' intention to visit their destination, matching to their destination positioning, and resulting in the effectiveness of their advertising.

One perspective that is revealed from this study is that cool tone colors as well as warm tones in beach destinations are appropriate to use in eliciting tourists' excitement toward those beach destinations. For example, if a travel destination positions itself as a place for younger travelers and focuses on the excitement of the beach destination and water activities (Morgan, Moore, & Mansell, 2005), marketers can decide to use either cool color tone photographs or

warm color tone photographs, which both will effectively draw excitement from the tourists toward the destination.

On the other hand, some travel destinations might position themselves as a place for relaxation and peacefulness and might target different groups of tourists such as families or elderly travelers (Prayag, 2012); they might consider using only cool color tones in beach photographs for their advertising purposes. Although some people can assume that photographs taken during the sunset time might look more relaxing, the results of this study argue that the warm tone colors appearing in such photographs might hinder these emotional responses.

This study focuses on traveling for pleasure. Perceived escapability is the core motivation for such travel (Pearce & Lee, 2005). When marketers implement their beach destination photographs to promote their locations, marketers should consider the purpose and motivation of their prospect travelers. In general, if the beach destination targets tourists to visit for their pleasure and escape from their daily lives (Snepenger, King, Marshall, & Uysal, 2006), using cool color tones in their beach destination will elicit perception of escapability more than using warm color tone of the same location. Although some previous research might claim that warm tone colors generate aggressive and arousal actions (Valdez & Mehrabian, 1994) that might seem to fit the purpose to run away from their boring routines, this study suggests that the warm tone colors in a beach photograph in fact are less effective on triggering tourists' perceived escapability.

Moreover, the first thing that comes up in people's minds when they see photographs is aesthetic evaluation. We tend to view a photograph and judge it if it is beautiful or not (Lang,

Greenwald, Bradley, & Hamm, 1993). In fact, this aesthetic evaluation is a crucial moderator to influence our affective response to those photographs. Namely, the color tones that trigger excitement and relaxation depend on how individual evaluate photograph aesthetically. In general, people who have high aesthetic evaluation respond more to excitement, relaxation, and escapability. By understanding the role of moderator, marketers might be able to manipulate elements in photographs during the photography construction to enhance the scenery perception. We can conclude that color tones in a photograph alone are not enough to affectively attract tourists to visit destinations. The photographs themselves need to be artistically beautiful and convey the best scene for the travel destination. Hence, not only artistic perspectives are presented by professional photographers (Datta et al., 2006), but also marketing strategies will be used in a photograph to compel more tourists to visit the destinations.

On the other side of the coin, this research ruled out the myth that people might see different color tones in a beach photograph and perceive it differently and the results of those impacts of color tones might depend on individuals' visual style of processing. Therefore, marketers who manipulate color tones in beach photographs can be certain that using different color tones in beach photographs as stimuli will be effective as they are expected to be. This will not vary by viewers' style of information processing.

Marketers use photographs in their marketing communication tools such as brochures, postcards, flyers, and websites in order to attract tourists to visit their travel destinations (Jenkins, 2003). The ultimate goal is to motivate tourists' intention to visit destinations (Baloglu, 2000), and these intentions are the result of attitudes toward those destinations themselves (Lam & Hsu, 2006). This research concludes that excitement, relaxation, and perceived escapability are

crucial predictors that enhance positive attitudes toward a beach destination. To expand this implication, marketers should focus on enhancing tourists' attitudes which can be triggered by affective and cognitive components. However, not only photographs can stimulate excitement, relaxation, and perceived escapability, but also message of advertising, pictured activities, sounds and effects of multimedia can provoke these affective and cognitive components (Hwang, Yoon, & Park, 2011; Putrevu & Lord, 1994). All of these integrated communication tools can be used in order to generate tourists' attitudes toward the travel destination. As a result, marketers can achieve tourists' intentions to travel to their places.

The findings of this study also fills the gap within current academic research across the disciplines including art, photography, marketing, psychology, and tourism. The role of color schemes in a photograph for tourism purposes were revealed. This study also provided insights into understanding the effectiveness of warm and cool color schemes that influences the internal factors of tourists who desire to travel for pleasure. Moreover, the results of this research also illustrate the relationship among these constructs: two affective dimensions of pleasure (excitement and relaxation), cognitive dimension (perceived escapability) as travel motivation, aesthetic evaluation and style of processing as moderators, and attitude and intention to visit a beach destination as the responses to these stimuli.

Theoretical Implication

This study illustrates many perspectives of theoretical knowledge. For example, the stimulus-organism-response (SOR) theory (Russell, 1975) has been tested in a tourism context.

Two dimensions of stimulus, situation and object, are coherent with beach photograph construction. Namely, beach photographs taken as stimulus to attract tourists are combined with a point in time when a photograph was taken which captured color tones and nature of location and a space where a photograph was taken in a scene (Snavely, Simon, Goesele, Szeliski, & Seitz, 2010). Objects are represented by all physical elements appearing in a photograph (Edwards & Hart, 2004). Objects in a photograph can be background objects, foreground objects, or the focused objects. In general, every element in a photograph, including its color tones, is a stimulus that triggers internal organism. By using the same photograph but different color tones, this study can reveal the impact of color tones on affective and cognitive organisms.

In the organism process, colors and mood theories are applied. Much literature supports that warm color tones elicit excitement and cool color tones elicit relaxation (Gorn et al., 2004; Kaya & Epps, 2004; Yang & Peng, 2008). On the other hand, unlike solid colors which have been studied as a single shade at a time, colors appearing in a photograph contain multiple natural shades which vary due to natural lighting and objects. Accordingly, the results of this study revealed that not only warm color tone can provoke excitement, but also cool color tone associated with the right objects can generate excitement. This research outcome extends knowledge in colors and mood theory; an implication worthy of further investigation. Both warm and cool color tones of beach photograph as stimuli also trigger perceived escapability. The findings confirm that individuals interpret colors as symbols and signals which associate with our common perceptions. Although there is scant literature on relationship between color tones and perceived escapability, this study shows that cool color tones elicit more perceived escapability

compared to warm color tones since we perceive green as availability or freedom to go and red as stop or caution.

When stimulus triggers internal organism, it leads to some kinds of behavioral responses (Ryu & Jang, 2006). Both excitement and relaxation are two affective components of traveling for pleasure which influence the attitude toward beach destinations. Perceived escapability is a cognitive component which influences attitudes toward beach destinations as well. These attitudes played a crucial role that lead to individuals' intentions to visit a travel destination (Jalilvand et al., 2012). Therefore, to trigger the means-end of intention to visit a travel destination, scholars need to understand the role of attitudes toward that destination, which can be motivated by affective and cognitive components such as excitement, relaxation, and perceived escapability. These internal organisms are processes that can be triggered by stimuli such as photographs of travel destinations as a result of the SOR model.

Practical Implication in the Professional Photography Process

Many organizations use marketing communication as the means to attract, inform, provoke, and remind their customers (Lane Keller, 2001). It can be in different forms such as texts, photographs, audio, and videos and different types of media such as television, magazines, and websites (Winer, 2009). However, this marketing communication should reflect the organization's vision and its strategy in order to express the concept of how the company desires to persuade their external audiences to receive the information that they desire to share (Balmer, van Riel, Jo Hatch, & Schultz, 1997).

When we narrow down the tools and elements that marketers use in their integrated communications, we can see that photographs are a significant material to use. The difference between high and low quality photography can be distinguished easily by people. However, it is very difficult to distinguish the finer differences between professional photographs (Ke et al., 2006). In the tourism industry, marketers use photography as a tool for marketing communication to position the destination in consumers' minds (Michaelidou et al., 2013). This communication strategy requires the knowledge of the impact of photography to communicate and manipulate travelers to visit the destination. For example, quality photographs with a well-presented destination taken by a professional photographer might impact and attract tourists more than snapshot photographs which might present bad images of the destination. Marketers create a concept as a guideline to communicate to their target consumers (Lane Keller, 2001). For instance, if marketers want to promote a summer vacation campaign, they might come up with a concept of a beach scene with cool tone color to generate a relaxing feeling and use these photographs related to this concept as a tool for their marketing communication through all media channels.

However, sometimes marketing communication have time and budget limitations. In this scenario, marketers might decide to use preexisting photographs from stock photo websites instead of hiring a photographer and making their own photographs. Stock photography websites are websites that provide a large amount and variety of good quality and affordable photographs submitted by amateur photographers around the world (Howe, 2006). These websites can provide the professional level of photographs in the form of a digital image library with royalty-free licenses (Ubsdell, 2012). In most cases, these stock photography websites allow marketers

or graphic designers to filter photograph results by their color tones, which marketers and graphic designers can decide whether they prefer warm or cool tones photographs to manipulate excitement, relaxation, or perceived escapability according to their promotional campaigns. However, most photographs available in stock photo websites are not specific to people or events but stereotypes which can be used in general purposes in any industries (Shifman, 2014). Therefore, if marketers desire to customize their photographs to their specific destinations with unique perspectives, hiring a professional photographer to take photographs from their destination might fulfill this objective better.

The photography production concerns both the photo shooting stage and the post photo shooting stages. During the photo shooting stage, a photographer can use lens filters, flash filters, white balance, and hue and temperature options in a camera to adjust and manipulate the color tone of photographs to be warm or cool tones as they desire (Baer, Holland, Holm, & Vora, 1999; Eisemann & Durand, 2004). Since the photo shoots are implemented by professional photographers, with the knowledge that tourists' intentions to visit the destination are derived from their attitude toward that place which can be predicted by excitement, relaxation, and escapability, photographers can set up scenes with additional objects which might trigger affective and cognitive perceptions such as a jet ski or beach chair in addition to color manipulations. Many professional photographers might wait until the prime time of the day to take photographs for the best lighting (Graham, 2013), creating warm color tones of sunset or the cool tone colors of a blue noon day sky (Kolivand & Sunar, 2014). However, the color tones also can be modified and edited during the post shooting process with photo editing software such as Adobe Photoshop and Adobe Lightroom. Therefore, corroborating with photographers

and graphic designers, marketers can apply the knowledge of the impact of color tones of beach photographs to suit their purpose of provoking tourists to visit their travel destinations.

Limitation and Future Research

Although this research was carefully designed and the results provide useful implications, there are several limitations that should be addressed for future research. First, hue composition and scene composition are helpful features that are used to evaluate quality of landscape photographs (Luo et al., 2011). This study focuses only on hue composition and controls for scene composition. By comparing two different color tones of the same scene, we could investigate the effects of color tones on affective and cognitive components. However, the effects of the scene composition are worthy of future research. For example, a future study might examine how elements of the scene such as various objects in a photograph can influence tourists differently.

Second, this study used a beach photograph taken from Thailand as a stimulus. The generalizations might be limited to beach destinations in particular kinds of scenery. Although the base elements of beaches are the same, they might vary by shapes and geographical contours. Future research might expand this area of study by investigating other types of travel destinations. For instance, one might study the impact of color tones in photographs on tourists' attitudes toward mountainous or urban tourism destinations.

Finally, tourists might travel with different purposes. This study scope is limited to traveling for pleasure. Therefore, only two dimensions of happiness as affective components and one core motivation as a cognitive component were examined. Future research might consider

different purposes of travelling relating to photography construction perspectives. For example, it would be worth discovering the impact of photography on culinary tourism or on educational travelling.

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APPENDIX

Appendix A: Measurement items

Source	Scale	Reliability	Rating scale	Scale Items
Wentzel (2009)	Excitement	.84	7-point Likert scale Please rate this photograph	Not exciting / exciting
				Not spirited / spirited
				Not imaginative / imaginative
				Not unique / unique
Gorn et al. (2004)	Relaxation	.85	7-point Likert scale How do you feel when you see this photograph? (Not at all – Very much)	Relaxed
				Calm
				Peaceful
				Uneasy (r)
				Tense (r)
				Anxious (r)
Lam and Mukherjee (2005)	Aesthetic Evaluation	.96	7-point semantic differentials Please rate this photograph	Offensive / Enjoyable
				Poor-looking / Nice-looking
				Displeasing / Pleasing
				Unattractive / Attractive
				Bad appearance / Good appearance
				Ugly / Beautiful
Kah et al. (2010)	Perceived Escapability	.91	7-point Likert scale Strongly disagree – Strongly agree	To escape from routine life
				To relieve boredom
				For a change of peace from everyday life
				To relieve daily stress
		.88		There are some special times in my life that I like to relive by mentally

Childers et al. (1985)	Style of Processing (Visualizer)		4-point Likert scale Always true – Always false	"picturing" just how everything looked
				When I'm trying to learn something new, I'd rather watch a demonstration than read how to do it
				I like to picture how I could fix up my apartment or a room if I could buy anything I wanted
				I like to daydream
				I generally prefer to use a diagram rather than a written set of instructions
				I like to "doodle"
				I find it helps to think in terms of mental pictures when doing many things
				After I meet someone for the first time, I can usually remember what they look like, but not much about them
				When I have forgotten something I frequently try to form a mental "picture" to remember it
				I seldom daydream
				My thinking often consists of mental "pictures' or images
Huang and Hsu (2009)	Attitude	.94	7-point Likert scale Strongly disagree – Strongly agree	Enjoyable
				Pleasant
				Full of fun
				Satisfactory
				Worthwhile
Bansal et al. (2004)	Intention to visit	.81	7-point Likert scale	I am likely to visit the destination after I see the photograph

			Strongly disagree – strongly agree	I will probably visit the destination after I see the photograph
				I am certain to visit the destination after I see the photograph.

Appendix B: Questionnaires (Group 1 : Cool Tone)

The impact of photography on tourism: photography construction perspective

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The approximate time period that this photograph was taken was between 10:00 am – 5:00 pm

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

Part A: Style of processing

Please provide honest and accurate answers to following statements.

	Always true	Usually true	Usally false	Always false
There are some special times in my life that I like to relive by mentally "picturing" just how everything looked				
When I'm trying to learn something new, I'd rather watch a demonstration than read how to do it				
I like to picture how I could fix up a room if I could buy anything I wanted				
I like to daydream				
I generally prefer to use a diagram rather than a written set of instructions				
I like to "doodle"				
I find it helps to think in terms of mental pictures when doing many things				
After I meet someone for the first time, I can usually remember what they look like, but not much about them				
When I have forgotten something I frequently try to form a mental "picture" to remember it				
I seldom daydream				
My thinking often consists of mental "pictures' or images				

Part B: The impact of photography

Scenario: Please imagine that you have been given an opportunity for a free vacation to travel to a beach. You do not have to consider time or money to visit this beach. You can visit this beach by yourself or anyone that you want to. Please look at the photograph to answer the following questions

What do you feel about this destination when you see this photograph?

	1	2	3	4	5	6	7	
Not excited	○	○	○	○	○	○	○	Excited
Not Spirited	○	○	○	○	○	○	○	Spirited
Not imaginative	○	○	○	○	○	○	○	Imaginative
Not unique	○	○	○	○	○	○	○	Unique

Please rate your feeling about this destination when you see this photograph

Relaxed

	1	2	3	4	5	6	7	
Not at all	○	○	○	○	○	○	○	Very much

Calm

	1	2	3	4	5	6	7	
Not at all	○	○	○	○	○	○	○	Very much

Uneasy

1	2	3	4	5	6	7

Peaceful

Anxious

Tense

Please rate this destination from this photograph

	1	2	3	4	5	6	7	
Offensive	○	○	○	○	○	○	○	Enjoyable
Poor-looking	○	○	○	○	○	○	○	Nice-looking
Displeasing	○	○	○	○	○	○	○	Pleasing
Unattractive	○	○	○	○	○	○	○	Attractive
Bad appearance	○	○	○	○	○	○	○	Good appearance
Ugly	○	○	○	○	○	○	○	Beautiful

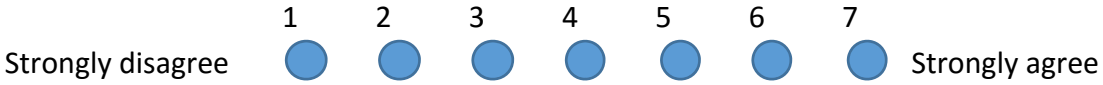
I want to escape from my routine life after seeing this photograph

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

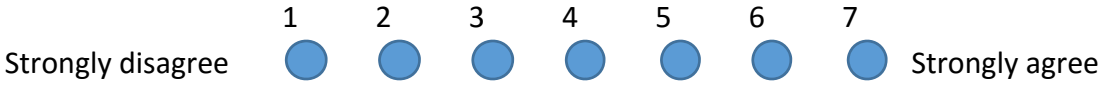
I want to relieve boredom after seeing this photograph

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I want a change of pace from everyday life after seeing this photograph



I want to relieve daily stress after seeing this photograph



This beach destination is enjoyable

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

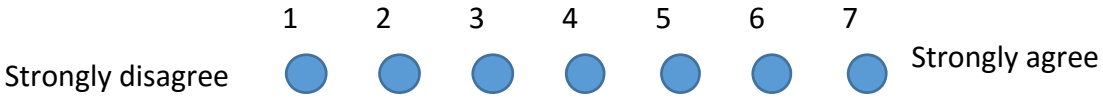
This beach destination is pleasant

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

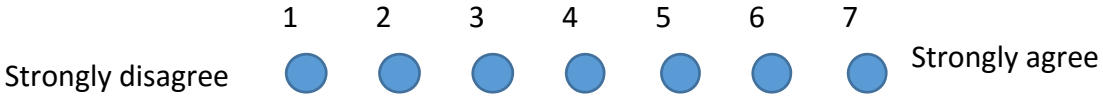
This beach destination is full of fun

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

This beach destination is satisfactory



This beach destination is worthwhile



I am likely to visit the destination after I see the photograph.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I will probably visit the destination after I see the photograph.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

I am certain to visit the destination after I see the photograph.

	1	2	3	4	5	6	7	
Strongly disagree	○	○	○	○	○	○	○	Strongly agree

How long would you like to spend staying at this beach destination?

◯ 1 day or less ◯ 2 – 3 days

◯ 4 – 5 days ◯ 1 week

◯ 2 weeks ◯ 3 weeks

◯ 1 month ◯ More than a month

What is the best description for this photograph?

◯ A portrait photograph

◯ A lifestyle photograph

◯ An abstract art

◯ A natural view

How would you describe the color tone of this photograph?

	1	2	3	4	5	6	7	
Cool tone color	●	●	●	●	●	●	●	Warm tone color

Part C: Demographic information

1. What is your gender?

   ◯ Male ◯ Female

2. How old are you? _____

3. Please specify your ethnicity.

   ◯ White

   ◯ Hispanic or Latino

   ◯ Black or African American

   ◯ Native American or American Indian

   ◯ Asian / Pacific Islander

   ◯ Other

4. What is your highest education?

   ◯ Less than high school

   ◯ High school graduate

   ◯ Some college

   ◯ College degree

   ◯ Graduate degree

5. What is your income per year?

◯ $20,000 or less

◯ $20,001 - $40,000

◯ $40,001 - $60,000

◯ $60,001 - $80,000

◯ More than $80,000

6. Have you been to the beach on a vacation? (Any beach)

◯ Yes ◯ No

7. Do you like going to the beach for vacation?

	1	2	3	4	5	6	7	
Strongly disagree	◯	◯	◯	◯	◯	◯	◯	Strongly agree

8. Are you color blind?

◯ Yes ◯ No

9. What is your favorite color from the colors provided below?

◯ Yellow ◯ Orange ◯ Red ◯ Pink

◯ Green ◯ Light blue ◯ Blue ◯ Purple

Appendix C: The initial photographs from the warm photograph development process.

1

2

3

4

5

6

7

8

9

Appendix D: Results from the expert panel

			Photographs								
			1	2	3	**4**	5	**6**	7	8	9
1	Expert 1	Graphic designer				1		3		2	
2	Expert 2	Photographer				2	3	1			
3	Expert 3	Graphic designer	3			1		2			
4	Expert 4	Photographer	No response								
5	Expert 5	Photographer	3		2		1				
6	Expert 6	Photographer			1	3		2			
7	Expert 7	Photographer				1		2			3
8	Expert 8	Photographer							3	1	2
9	Expert 9	Photographer				3		2			1
10	Expert 10	Graphic designer	3		2					1	
11	Expert 11	Photographer				2		3		1	
12	Expert 12	Photographer	No response								
13	Expert 13	Photographer			1	2		3			
		Total	**9**	**0**	**6**	**15**	**4**	**18**	**3**	**5**	**6**

The warm photograph number 1, 4, and 6 were used in the pre-test to finalize the best warm photograph to use in this study.

Appendix E: The final photographs in the main study.

Cool Tone

Warm Tone

Appendix F: Human Subject Exemption Approval Forms

THE UNIVERSITY OF TENNESSEE KNOXVILLE

Xmpt311 Revision Approval (w/o Provisos)

February 21, 2017

Justin Kaewnopparat,
UTK - Coll of Education, Hlth, & Human - Retail, Hospitality, and Tourism Mgmt

Re: UTK IRB-16-03340-XM
Study Title: The impact of photography on tourism: photography production perspective

Dear Justin Kaewnopparat:

The UTK Institutional Review Board (IRB) reviewed your application for **revision** of your previously approved project, referenced above. The IRB determined that your revision application is eligible for expedited review under 45 CFR 46.110(b), and that your study remains eligible for **exempt** status. The following revisions to your project were approved as complying with proper consideration of the rights and welfare of human subjects:

- Change Project Title to The impact of photography on tourism: photography construction perspective
- Update questionnaire to re-order questions, and to add three questions (2 about the beach and 1 about color-blindness)
- Questionnaires v 1.1

In the event that subjects are to be recruited using solicitation materials, such as brochures, posters, web-based advertisements, etc., these materials must receive prior approval of the IRB. Any alterations (revisions) in the research project must be submitted to and approved by the UTK Institutional Review Board prior to implementation of these revisions. In addition, you are responsible for reporting any unanticipated serious adverse events or other problems involving risks to subjects or others in the manner required by the local IRB policy.

Sincerely,

Colleen P. Gilrane

Colleen P. Gilrane, Ph.D.
Chair

Institutional Review Board | Office of Research & Engagement
1534 White Avenue Knoxville, TN 37996-1529
865-974-7697 865-974-7400 fax irb.utk.edu

VITA

Justin Kaewnopparat was born in Nakornsrithammarat, Thailand. He received his bachelor's degree in 2002 from Srinakharinwirot University, faculty of Sciences, majoring in Home Economics with the concentration on Human Resources Management. He received his Master's degree in Business Administration, majoring in Marketing from the same university in 2006. After gaining extensive work experience, he received a full scholarship from Bangkok University, Thailand, and accepted to pursue his Ph.D. at the University of Tennessee. In 2017, he graduated with a Ph.D. in Retail, Hospitality, and Tourism Management with a focus on the impact of photography on tourism.

During his doctoral program, Justin accepted a teaching assistantship and was a guest speaker for consumer behavior and tourism management classes. Having a passion for art and photography, he won multiple photo contests from the International House at the University of Tennessee. He was also a photographer for events held by the Retail, Hospitality, and Tourism Management department. Justin will start his academic career in the department of Humanities and Tourism Management at Bangkok University, Thailand, in August 2017.