A CONCEPTUAL MODEL OF CONSUMERS ONLINE TOURISM CONFUSION

By

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To the Faculty of Washington State University:

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dissertation of CHENG CHIEH LU find it satisfactory and recommend that
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Abstract

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The first paper proposed a conceptual model demonstrating the antecedents and outcomes of consumers’ online tourism information confusion through the integration of information providers (i.e., online tourism marketers) and information receivers’ (i.e., consumers) perspectives. From information providers’ perspective, too much, too similar, and too ambiguous information provided by various online tourism websites are three major causes of consumers’ confusion. From information receivers’ perspective, five individual difference variables: Internet experience, learning orientation, tolerance of ambiguity, price consciousness, and need for cognition are proposed as important traits that might predispose consumers to confusion. Furthermore, five confusion reduction strategies derived from consumer confusion literature are included in the model as the outcomes of consumers’ online tourism information confusion. Managerial implications for online tourism marketers are provided.

From information recipient’s perspective, the second paper developed a research model with three individual characteristics (1. learning orientation 2. price consciousness 3. need for cognition) representing important antecedents and five confusion reduction strategies (1.
sharing/delegate the purchase 2. seek additional information 3. rely on familiar websites and sources 4. abandon the purchase 5. clarify the purchase goals) representing important outcomes of travelers online tourism confusion. Data of this study was collected from 437 tourism website users, and six proposed hypotheses were tested utilizing a structural equation modeling approach and a series of regression analysis. Managerial implications for online tourism marketers who want to address consumers’ confusion in online tourism domain are provided.

The third paper examined the relationships among materialism, ecotourism attitude, ecotourism interest, ecotourism intention, and willingness to pay a premium for ecotourism utilizing a model that was developed based on the literature. Data for this study were collected from 2,352 Italian travelers and proposed hypotheses were tested utilizing a structural equation modeling approach. Findings indicated that individuals’ materialistic value has negative relationships with their ecotourism attitude, ecotourism interest, ecotourism intention, and willingness to pay a premium for ecotourism products and services. Findings also suggested that individuals’ ecotourism attitude would positively influence ecotourism intention, ecotourism interest, and willingness to pay a premium for ecotourism products and services.
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INTRODUCTION

Within the last few decades, the variety of products and services offered in the business-to-consumer market has increased dramatically. When consumers are provided with ever-increasing amounts of information about similar products and services promoted and sold through variety of channels, they are likely to get confused. The concept of confusion is becoming increasingly important and has been reported as a major problem for products, e.g., telecommunications (Turnbull, Leek, & Ying, 2000), watches (Mitchell & Papavassiliou, 1997), fashion (Cheary, 1997), washing powder (Harrison, 1995), and veal products (West, Larue, Gendron, & Scott, 2002).

Consumer confusion can also be observed in tourism industry (Matzler & Waiguny, 2005). Nowadays, online information search has become an increasingly dominant mode of information search (Xiang & Gretzel, 2010). Consumers use the internet to access and process travel-related information, to buy tourism products and services or to express their wishes and ideas in virtual product and service development projects. In addition to a great amount of tourism information available from online-reservation-systems and online-travel-agencies, most travel destinations and their local businesses have also established their official homepages. Rapid technological development has made online tourism domain become more information-intensive and competitive. Although consumers can thus benefit from collecting enormous amount of information from different online sources such as industry suppliers (e.g., hotels, airlines, restaurants), intermediaries (e.g., travel agents), controllers (e.g., governments and
administrative sectors), online social networks, and many non-profit organizations (e.g.,
destination marketing organizations) (Xiang & Gretzel, 2010), they are also likely to get confused when all the collected information is too similar, too complicated, too much and too ambiguous.

Unique features of tourism services that differentiate them from manufactured products and non-tourism services force consumers to collect more information before making their consumption decisions. For example, consumers usually consume a tourism service in a different place from where they live (Sirakaya, McLellan, & Uysal, 1996). Consumption of a tourism service (e.g., a vacation to other states or countries) usually takes a longer time and costs more than the consumption of many other kinds of services. It is also hard to standardize tourism products due to their unique features (i.e., intangibility, perishability, heterogeneity). Due to these unique features, consumers tend to associate higher financial and emotional risks with many tourism service decisions (Sirakaya & Woodside, 2005). Consequently, consumers usually need to conduct more information search to reduce perceived risk involved in the tourism purchase decisions (Gursoy & McCleary, 2004). However, with the increase of information search, some individuals might experience confusion due to information overload, a phenomenon likely to occur in the context of online information search. A number of studies (Ahuja & Webster, 2001; Eveland & Dunwoody, 2001; Tremayne & Dunwoody, 2001) have demonstrated that the Internet could cause information overload and disorientation among its users, especially for those with little familiarity with the medium. An important reason for such information overloaded is the significant amount of information available on the Internet (Chen, 1999; Pan & Fesenmaier, 2006). The low cost of online search also leads individuals to search for information to a greater degree than do traditional media (Biswas, 2004). On the other hand,
research in psychology (e.g., Miller, 1956) and marketing (e.g., Jacoby, Speller, & Kohn, 1974) suggest that humans have a limited capacity to process information so that an excessive amount of information would negatively influence decision-making. Consequently, given the amount of information on an issue may be very high while, at the same time yet the user’s ability to process that information is limited (Decrop & Snelders, 2005; Owen, 1992), the chance of online information confusion is very high.

The preceding discussion explicitly suggests that online confusion is mainly caused by either the stimulus created by message senders, or information recipients’ inability to process incoming message. In marketing and advertising literature, considerable research attention has been paid to online information provider perspective (Abernethy & Franke, 1996), as various aspects such as information quality, quantity, format, content, and presentation approach, and etc. are critically associated with how information could be interpreted and comprehended by information receivers. There is also a body of research focusing on online information receiver perspective, since individual differences such as demographic variables, personality traits, learning styles, motivations, and etc. have been examined as important determinates of one’s information search and processing approaches (Kim, Lehto, & Morrison, 2007; Roedder, 1981). However, there has a limited number of research aiming to investigate confusion issue through the integration of the above two different perspectives. In particular, research effort on consumers’ information confusion issue is seriously scant in the tourism literature. Given that confusion has been associated with several unfavorable consequences, such as negative word-of-mouth (Turnbull et al., 2000), dissatisfaction (Foxman, Muehling, & Berger, 1990; Zaichkowsky, 1995), cognitive dissonance (Mitchell & Papavassiliou, 1999), decision postponement (e.g. Huffman & Kahn, 1998; Jacoby & Morrin, 1998), shopping fatigue ( 
Mitchell & Papavassiliou, 1997), reactance (Settle & Alreck, 1988), decreased loyalty, trust and confusion of other consumers (Foxman, Berger, & Cote, 1992; Foxman et al., 1990), there is a particular need for tourism businesses to understand how consumers’ online confusion might take place and what actions consumers will take to cope with this issue.

To this end, the purpose of this study is to develop a conceptual model demonstrating the antecedents and outcomes of consumers’ online tourism information confusion. Through the integration of information provider and receiver’s perspectives, the model proposes that too much, too similar, and too ambiguous tourism information are three major causes of consumers’ online confusion. Five individual difference variables: Internet experience, learning orientation, tolerance of ambiguity, price consciousness, and the need for cognition are proposed as important traits which might predispose consumers to confusion. Tolerance of ambiguity refers to individuals’ tendency to perceive ambiguous situation as desirable (Conchar, Zinkhan, Peters, & Olavarrieta, 2004), whereas learning orientation represents people’s motivation to improve their abilities and master the tasks they perform (Magnini & Honeycutt, 2003). While price consciousness is exclusively concerned with consumers’ focus on paying a low price (Lichtenstein, Ridgway, & Netemeyer, 1993), need for cognition denotes the tendency to engage in and enjoy thinking (Cacioppo and Petty, 1982). Internet experience is regarded as an individual’s length and frequency of using Internet (Frías, Rodríguez, & Castañeda, 2008). The underlying mechanisms in which these variables might lead to consumers’ online tourism information confusion are elaborated in the later discussion.

Based on a review of published research on confusion issues, this study also proposes five confusion reduction strategies that consumers frequently adopt as important outcomes of consumers’ online confusion. These five strategies are: clarify the purchase goal, share/delegate
the purchase, abandon the purchase, seek additional information, and rely on familiar information sources. Overall, the proposed model is developed as comprising 13 propositions.

LITERATURE REVIEW

Consumer confusion

Turnbull et al. (2000, p.144) defined confusion as “consumer failure to develop a correct interpretation of various facets of a product/service, during the information processing procedure”. Mitchell and Papavassiliou (1999) also consider confusion as an uncomfortable state of mind that primarily arises in the pre-purchase phase, which negatively affects consumers’ information processing and decision-marking abilities as well as lead consumers to make sub-optimal choices. They further demonstrated that consumer confusion could result in a number of negative outcomes. Firstly, potential consumer can experience extreme difficulties in making final decision when overwhelmed by various choices. Secondly, confusion could cause suboptimal decisions, indicating that consumers are likely to make a decision failing to satisfy their specific needs. Thirdly, the confused consumer is more likely to send wrong and ambiguous information to others. Obviously, confusion is harmful for not only consumers, but also product and service providers. Literature suggests that there exist three dimensions of consumer confusion (Mitchell & Papavassiliou, 1999; Walsh & Hennig-Thurau, 2002), which are similarity confusion, overload confusion, and ambiguous confusion.

Similarity confusion is defined as “a lack of understanding and potential alteration of a consumer’s choice or an incorrect brand evaluation caused by the perceived physical similarity of products or services” (Mitchell, Walsh, & Yamin, 2004, p. 4). Similarity confusion can occur due to a brand similarity (Walsh & Hennig-Thurau, 2002) when competitors imitate the brand or
when quality or product attributes of different alternatives are very similar. In addition, similarity confusion is also likely to take place when different advertisements and commercials provide similar information and messages (Kent & Allen, 1994; Poiesz & Verhallen, 1989).

Overload confusion is associated with the fact that consumers are encountered with an overly information rich environment. Such information overload could suppress consumers’ ability to process the information accurately and make consumers less confident in the purchase situation (Mitchell et al., 2004). Information overload is caused by the increase of alternatives and an increase of decision-relevant information on these alternatives.

Ambiguity confusion takes place when consumers are “forced to re-evaluate and revise current beliefs or assumptions about product or purchasing environment” (Mitchell et al., 2004, p. 8). Ambiguity confusion, for example, occurs when consumers review new, valid, or false information which is contradictory or does not coincide with existing knowledge. This suggests that what causes customers’ confusion is the quality, but not the quantity of information (Wiedmann, Walsh, & Klee, 2001). Typically, ambiguity confusion is the result of unclear and contradictory information (Mitchell et al., 2004; Turnbull et al., 2000) about the products or too many complex functions and attributes of the products (M. Cohen, 1999).

Too much, similar, and ambiguous information in online tourism domain

The concept of consumer confusion is primarily relevant in highly turbulent industries, which are characterized by rapid technological change and evolving competition. (Turnbull et al., 2000). It can thus be assumed that this phenomenon is also of high importance in tourism industry, which is an increasingly competitive international industry boosted by rapid technological development (Buhalis & Law, 2008). While in offline markets consumers can be
confused about products, services, their attributes, prices, and advertisements (Turnbull et al., 2000), on the internet too much information and too many hits while searching can also lead to confusion (Walsh, Mitchell, & Frenze, 2004). Nowadays, with rapid data transmission on the internet, consumers can easily access travel-related information from various sources such as reservation systems and online travel agencies (e.g. Expedia), search engines and meta-search engines (e.g., Google and Kayak, respectively), destination management systems (e.g., visitbritain.com), social networks and web 2.0 portals (e.g., wayn and tripadvisor), price comparison sites (e.g., kekoo) as well as individual suppliers and intermediaries sites (Buhalis & Law, 2008). Such convenience has facilitated the information exchange between online consumers and “online tourism domain”, which can be understood as comprising all information entities that relate to travel (Zheng Xiang, Wöber, & Fesenmaier, 2008). There is no doubt that online information search has made potential consumers become more independent by allowing them to use a wide range of online tools to collect needed tourism information to arrange their trips. However, such convenience also has a side effect that consumers usually need to spend more time and effort on searching and comparing different websites for alternative products and services in order to reduce the financial cost and enhance the quality of their trips. Under such circumstance, Internet users are likely to fall into information confusion during the online search process.

Walsh et al., (2004) introduced the term “e-confusion on the internet” and proposed that, as with three traditional confusion dimensions, e-confusion on the internet can also be categorized into similarity e-confusion, unclarity e-confusion and overload e-confusion. According to them, similarity e-confusion might be the consequence of looking into too many look-alike websites. Unclarity e-confusion on the web might take place when consumers feel
uncertain about the creditability of certain online business. Another cause of unclarity e-
confusion could be flash technology with texts and pictures moving and disappearing quickly,
which can lead consumers to suspect the accuracy and reliability of the information. Price can
also be a potential source of this type of confusion as the exclusion or inclusion of tax may be
uncertain. “Overload e-confusion can be largely attributed to an exponential increase in websites,
unsolicited mail, the vast assortments of e-retailers, and excessive online advertisements”
(Walsh et al., 2004). Walsh, Mitchell and Frenze (2004) also suggest that the design of websites
could be another source of overload confusion: “Some websites place too much information into
limited space deliberately to confuse surfers” (Walsh et al., 2004, p. 18).

The above causes of three types of e-confusion also apply to online tourism websites.
Take a number of popular online travel agencies for example such as Expedia, Orbitz,
Travelocity, Priceline, CheapTickets, and etc., these websites present nearly identical
information about flight, hotel, car, activities, cruises, and a number of package tours with minor
price differences. Except the name of these travel websites, the design, format and layout of
these websites look similar without much differentiation. Consumers might thus fall into
similarity e-confusion when looking into too many of them, and overload e-confusion can thus
occur when consumers are overwhelmed by too much information and advertisements from these
websites. Furthermore, the rapidly updated information of many different websites might cause
consumers’ unclarity e-confusion in that consumers are unable to catch up with the frequently
changing prices as well as those quickly moving and disappearing available itineraries from
these different websites. Unclarity e-confusion can also take place when consumers have a low
level of trust on some of these websites. All in all, from information provider’s perspective, no
matter which specific reasons account for the occurrence of consumers online tourism
information confusion, all these causes can be classified into three broad categories: too much, too similar, or too ambiguous online information. These three major dimensions can thus be conceptualized as the major causes respectively accounting for consumers’ overload, similarity, and ambiguous confusion. Therefore, the following three propositions are developed

P1: As too much online tourism information is provided, consumers’ overload confusion is likely to increase.

P2: As too similar online tourism information is provided, consumers’ similarity confusion is likely to increase.

P3: As too ambiguous online tourism information is provided, consumers’ ambiguity confusion is likely to increase.

Preceding discussion has largely emphasized the negative effect of too much, similar, or ambiguous information produced by online tourism advertisers. From information receiver’s perspective, however, different individual characteristics could also increase or decrease the chance of encountering information confusion, regardless of the characteristics of the stimuli (Foxman et al., 1992). The level of information search and processing performed by different consumers could significantly vary from one to another (Gursoy & McCleary, 2004). Normally, the more effort and time an individual spends on information collection and processing, the lower the chance he or she will be confused by those information. Therefore, the identification of individual characteristics which might affect one’s motivation and effort to engage in information processing would help online tourism marketers to understand more critical causes of consumers’ online information confusion.

*Information processing theory*
Petty and Cacioppo’s (1986) Elaboration Likelihood Model (ELM) provides a useful conceptual framework for this study to demonstrate how various individual-based variables might be critical antecedents of consumers’ three online confusion dimensions. Elaboration refers to the extent to which a person think about issue-relevant arguments contained in a message, and the degree of message elaboration is influenced by two factors: motivation and ability. When people’s motivation and ability are both high to get involved in an issue-related thinking, the elaboration likelihood is considered to be high. This means that people are more likely to access relevant associations, images, and experiences from their memory; carefully review and elaborate on the external information in light of the associations available from memory; and consequently draw an overall evaluation of, or attitude toward, the external information. The information processing of this type proceeds along the so called “central route”, in which one’s follow-up attitude towards a product, brand or service is resulted from a detailed analysis of the information a person has been able to collect. The attitude developed through central route would be more enduring and more indicative of future behavior. By contrast, if people hold low motivation and ability, the information processing would proceed along the “peripheral route”, in which the follow-up attitude is resulted from the analysis based on simple cues or intuitive inferences. The attitude developed through peripheral route become less enduring and less indicative of future behavior (Petty & Cacioppo, 1986). In sum, ELM model suggests that an individual’s motivation and ability are key factors to determine whether a person is processing external information through a thorough and systematic manner (i.e., central route). This rationale provides an important implication to the main issue of this study, as information confusion usually happens when information recipients are unwilling to, or incapable of processing the incoming messages.
Individual characteristic variables that may influence a person’s motivation/ability to process online information

The advent of the Internet has opened up opportunities for researchers to examine the ways in which information processing takes place and the differences in processing information from online sources and other traditional media (Frías, Rodríguez, & Castañeda, 2008). To date, studies have reported somewhat inconclusive findings. For example, a number of studies (e.g., Cho, 1999; Cho & Leckenby, 1999; Dijkstra & Van Raaij, 2001) reveal that the control of information, typical of the Internet, causes people to perform more intensive and elaborate processing, while Bezjian-Avery, Calder, and Iacobucci (1998) contend that the control of information is more of an obstacle to information processing. On the other hand, Yu and Roh (2002) suggest that the Internet demands more cognitive resources as opposed to print media. A possible explanation for these inconsistent results and arguments is that most research attention were focused on information providers and did not take information receivers into account. Some empirical evidences have shown that individual differences such as gender, personality, motivation, and performance (Humphreys & Revelle, 1984; Sanjay Putrevu, 2001) would lead people to perform different levels of information processing. If individuals perform different levels of online information processing, those with high motivation and ability should be less likely to encounter confusion than those with low motivation and ability. That is, the more effort and time a person spends on online information processing, the lower the chance of his or her confusion. The current study thus posits five individual characteristic variables: Internet experience, learning orientation, tolerance of ambiguity, price consciousness, and need for cognition would greatly influence a person’s effort to process online information, which could thus be considered as important antecedents of consumers’ online tourism information confusion.
Internet experience

Since the current study discusses consumers’ confusion issue in the context of online tourism domain, individuals’ familiarity and knowledge about the internet may have significant impact on recipient’s utilization and processing of online tourism information. A number of studies have shown that consumers with sufficient Internet experience should feel more comfortable using the online channel while others may be reluctant to use the online channel because of perceived uncertainty and risk (Montoya-Weiss, Voss, & Grewal, 2003; Murray & Schlacter, 1990). Researchers (Frías et al., 2008) also suggest that Internet experience can be regarded as a variable reflecting a person’s ability to process online information. Thus, Internet experience is a critical factor significantly determining whether a potential consumer is comfortable with using the Internet to conduct information search as well as whether he or she has basic or sufficient online experience or knowledge to process online tourism information. Therefore, according to ELM theory, individuals with high level of internet experience (i.e., high ability) are likely to process online information through “central route”, in which the incoming messages can go through an explicit and detailed analysis. In contrast, those with low Internet experience are less likely to conduct thorough and scrutinized information processing due to lower online search ability, and might only adopt some simple cues or personal inferences to process the incoming messages (i.e., peripheral route). In line with this logic, compared with consumers with low Internet experience, those with high Internet experience should be less likely to experience confusion during the process of online information search. The following proposition is thus developed

P4: The higher the level of consumers’ Internet experience, the lower the chance of their online (a) similarity, (b) overload, and (c) ambiguity confusion.
Learning orientation

Individuals who possess a strong learning orientation strive to comprehend new things and increase their level of capability in a given activity (DeShon & Gillespie, 2005). When faced with challenging situations, those who have a strong learning orientation will respond with adaptive and mastery-oriented behaviors that promote persistence in the face of difficulties, encourage the search of new solutions, and lead to sustained or improved levels of performance (DeRue & Wellman, 2009). Moreover, when encountered with challenging situations, individuals with a strong learning orientation will view mistakes as beneficial feedback and opportunities for learning and thus often increase their effort to develop new skills and knowledge (Gong, Huang, & Farh, 2009). On the contrary, people who naturally have a weak learning orientation usually intend to protect their self-image by displaying maladaptive patterns of behavior. This type of individuals often become overwhelmed by different challenges, experience performance deterioration, and avoid further challenges in their work (Magnini & Honeycutt, 2003). Furthermore, people with a weak learning orientation often intend to withdraw psychologically from overly challenging situations (Cordes & Dougherty, 1993).

The above discussion explicitly demonstrate that learning orientation is an internal mindset that motivates people to constantly improve themselves to achieve mastery (Gong, Huang, & Farh, 2009). This personality trait might be importantly associated with an individual’s motivation to process and comprehend the information received. Since high learning orientated individuals would strive to seek solutions and display mastery-oriented behaviors when faced with difficulties, they are likely to put more effort and time than low learning orientated ones to seek more information and process information with greater effort for a given issue. Following the rationale of ELM model, people with high learning orientation should be those who prefer
“central route” information processing, as they should like to conduct a scrutinized and systematic information search and processing to avoid and overcome any possible confusion and difficulties. Therefore, in the online tourism domain, consumers of high learning orientation, compared with those of low learning orientation, are likely to spend more time and effort to gather, process and comprehend all available information, which could decrease the chance of being confused. The above discussion leads to the following proposition:

P5: The higher the level of consumers’ learning orientation, the lower the chance of their online tourism (a) similarity, (b) overload, and (c) ambiguity confusion.

Tolerance of ambiguity

Tolerance of ambiguity refers to the way an individual (or group) perceives and processes information about ambiguous situations when they are confronted by an array of unfamiliar, complex or incongruent cues (Furnham, 1994). Ambiguous situations include completely new situations, complicated situations where there are a large number of cues, or contradictory situations (Gurel, Altinay, & Daniele, 2010). The literature have suggested that consumers will go through a state of ambiguity if they attempt to clarify the choice environment and make a more considered purchase (Walsh & Yamin, 2005); such circumstance is very likely to occur in the context of consumers’ online information search. Researchers (e.g., Money & Crotts, 2003; Quintal, Lee, & Soutar, 2010) have suggested that people who are less tolerant of ambiguity are likely to gather more information during risk processing, consider ambiguous situations as more risky, and be less willing to take risks. In any case, this type of people are more likely to search and process information with a higher level of motivation, and be more willing to enhance their ability to process information in order to reduce or remove ambiguous feelings. Tolerance of
ambiguity might thus be an important personality trait associated with consumers’ online information confusion. Following the rationale of ELM model, people with low tolerance of ambiguity should be those who prefer “central route” information processing, as they usually need a scrutinized and systematic information processing to avoid uncertain and ambiguous situations. Therefore, in the online tourism domain, consumers of low ambiguity tolerance, compared with those of high ambiguity tolerance, are likely to spend more time and effort to gather, process and comprehend all available information in order to decrease the chance of being confused. The above discussion leads to the following proposition:

P6: The lower the level of consumers’ tolerance for ambiguity, the lower the chance of their online tourism (a) similarity, (b) overload, and (c) ambiguity confusion.

*Price consciousness*

Price represents the amount of money that must be sacrificed in order to engage in a given purchase transaction, and therefore higher prices negatively impact purchase probability (Lichtenstein et al., 1993; Raab, Mayer, Kim, & Shoemaker, 2009). Lichtenstein et al. (1993) defined price consciousness as “the degree to which the consumer focuses exclusively on paying a low price” (p. 235). Most studies (e.g., Heo & Lee, 2011) hold that price consciousness is an attitude-like enduring predisposition (a cross-situational, evaluative tendency) that varies in intensity across individuals. Individuals could vary in this attitudinal tendency because of differences in their upbringing and socialization, resulting in differences in the importance placed on the value of being thrifty, and the presence/absence of relevant cognitive beliefs about the importance of saving money (Inglehart, 1989). As Jin, He, and Song (2012) argued, price-
Value conscious consumers aim to find best value for money so that they tend to have clear purchasing criteria and their approach to shopping is systematic, thorough and efficient.

In online tourism domain, the price for a certain tourism product or service can vary significantly from one website to another. With the desire to pay a low price for tourism products and services, an individual should have a higher motivation to collect and process all available online information, as well as make multiple comparisons on those information from different sources. Price-value conscious consumers should be more willing to do so since finding the best deal or making the best purchase decision for a tourism product usually demands numerous comparisons and careful analysis of all available information. Consequently, price-value conscious consumers, according to ELM theory, should be those who like to process information through “central route”, in which incoming information will go through a scrutinized comparison and analysis. In this sense, people who are very conscious about price are less likely to experience confusion during online information search process. Therefore, the following proposition is developed:

P7: The higher the level of consumers’ price consciousness, the lower the chance of their online tourism (a) similarity, (b) overload, and (c) ambiguity confusion.

Need for cognition

The concept of need for cognition was first introduced by Cohen, Stotland and Wolfe (1955) as “a need to structure relevant situations in meaningful, integrated ways. It is a need to understand and make reasonable the experiential world” (p. 291). They argued that the frustration of this need leads to “feelings of tension and deprivation”, which will trigger “active efforts to structure the situation and increase understanding” (Cohen et al., 1955, p. 291).
Cacioppo and Petty (1982), on the other hand, conceptualize need for cognition as people’s intrinsic motivation and enjoyment to engage in effortful information processing. There is substantial evidence showing that differences in NFC correspond to behavioral differences in how people approach cognitive tasks. For example, studies found that individuals with a higher NFC are better than individuals with a lower NFC at remembering previously presented information (Cacioppo, Petty, & Morris, 1983) and are more likely to engage in issue-relevant thinking (Axsom, Yates, & Chaiken, 1987). Compared with low NFC subjects, high NFC individuals also take greater pleasure in performing difficult tasks, show a stronger propensity to search for new information (Cacioppo et al., 1996) and tend to process information more intensively and balance all relevant information more accurately before making judgment (Putrevu, Tan, & Lord, 2004). In addition, empirical findings revealed that need for cognition is positively related to people’s tendency to devote attention exclusively to an ongoing cognitively challenging task (Lord & Putrevu, 2006) and negatively related to the tendency to ignore, avoid, or distort new information (Venkatraman, Marlino, Kardes, & Sklar, 1990). Overall, these prior studies consistently demonstrated that individuals with high NFC enjoy effortful thinking and reasoning, while those with low NFC are less disposed to put forth much effort in processing the information. Clearly, high NFC individuals, according to ELM theory, are those who enjoy information processing through “central route”, as they are highly motivated to perform a thorough and systematic thinking and reasoning. This kind of people should be less likely to experience confusion than do low NFC individuals in online tourism information search. Therefore, the present study postulates that NFC is a critical trait negatively associated with consumers’ disposition to online confusion. The following proposition is thus developed:
P8: The higher the level of consumers’ need for cognition, the lower the chance of their online tourism (a) similarity, (b) overload, and (c) ambiguity confusion.

Outcomes of online tourism confusion: Consumers’ confusion reduction strategies

Customers will respond to confusion, whether it is conscious or unconscious, with several confusion reduction strategies (Matzler, Waiguny, & Fuller, 2007). Understanding confusion reduction strategies is a precursor to improving marketing activities (Drummond & Rule, 2005). Previous studies proposed several generic confusion reduction strategies including (1) do nothing and ignore confusion; (2) postpone the purchase; (3) abandon the purchase; (4) Share/delegate the purchase decision; (5) clarify the buying goals; (6) seek additional information; (7) narrow down the set of alternatives (Mitchell & Papavassiliou, 1997)

Among these strategies, “do nothing and ignore confusion” can hardly be considered as a reduction strategy because an individual will do nothing only when the level of confusion becomes unacceptable (Mitchell & Papavassiliou, 1997). In addition, consumers do nothing and ignore confusion is usually an unplanned reaction (Drummond, 2004), so that it provides little meaningful implication for online tourism marketers to come up with appropriate solutions. Therefore, the present study does not include this strategy as a proper strategy that online consumers will take to address confusion.

Postpone refers to a delay in order to better deal with confusion circumstances surrounding the purchase, and it usually leads to the deployment and execution of the other five confusion reduction strategies. With such deliberate delay, consumers are able to compare more alternatives, seek more needed information, involve more people into the purchase decision, clarify the purchase goals again, or simply abandon the purchase in the end. Sometimes the
abandonment of one certain purchase could bring about another purchase, because the discard of a purchase may be due to consumers realization or reevaluation of their actual needs.

Share/delegate the purchase means that confused consumers involve other people (e.g., spouse, friends, family members) in the purchase decision or even delegate the decision to them completely. This strategy can greatly assists a confused buyer when those shopping partners possess issue-related experience or expertise that can provide useful suggestions or make correct purchase decisions for the buyer. However, shared or delegated decisions do not always guarantee the reduction of confusion, as involved parties themselves can sometimes confuse the purchaser and inhibit the decision-making process by providing contrasting opinions with the purchaser’s opinion or conveying inaccurate or ambiguous information about the purchase. Therefore, involving right people into the decision making process is the key for those confused consumers who intend to adopt this strategy. Clarifying the buying goal is simply a subjective assessment regarding whether the purchase can fulfill the needs, and this strategy is usually made along with seeking additional information. For example, an online consumer might seek more information and compare more tourism websites to clarify which destination is the best choice for vacation.

Seeking additional information is one of the most common confusion reduction strategies (Drummond, 2004). However, the reduction of confusion by this manner is critically associated with the content of the information received. When newly obtained information is conflicting and confusing, it could cause a backfire making consumers become more confused. This provides an important implication for online tourism marketers and advertisers that presenting good quality information not only helps to reduce the chance of tourists confusion beforehand,
but also play as a critical role in enabling those already confused tourists who attempt to seek more information to clarify their confusion.

Narrowing down the choice set is usually the most frequently used approach to reduce information overload (Mitchell & Papavassiliou, 1999). This strategy simplifies the decision making process by establishing a qualifying criteria and discard choices which do not meet the criteria. Research shows that experienced consumers are more adept at forming choice-sets (Jacoby, 1977) and their experience helps to provide more selective perspectives (Neisser, 1976).

In the online tourism domain, the preceding strategies are also likely to be adopted by consumers who are confronted with confusion during the online search process. The current study thus proposes that these confusion reduction strategies are important outcomes of three types of e-confusion and that all three e-confusion could possibly lead to each of these strategies respectively. It is noted in the literature that “narrowing down the choice set” basically means that consumers rely on familiar brands (Rudolph & Schweizer, 2003). In the context of online tourism information search, this strategy can be perceived as consumers’ reliance on familiar websites and sources for their purchase decisions. Consequently, this study revises this reduction strategy to “rely on familiar online information sources” to better fit into the context of this study. The following five propositions are thus developed

P9: As consumers’ online tourism (a) similarity, (b) overload, and (c) ambiguity confusion increase, consumers are likely to clarify the buying goals

P10: As consumers’ online tourism (a) similarity, (b) overload, and (c) ambiguity confusion increase, consumers are likely to share/delegate the purchase
P11: As consumers’ online tourism (a) similarity, (b) overload, and (c) ambiguity confusion increase, consumers are likely to abandon the purchase.

P12: As consumers’ online tourism (a) similarity, (b) overload, and (c) ambiguity confusion increase, consumers are likely to seek additional information.

P13: As consumers’ online tourism (a) similarity, (b) overload, and (c) ambiguity confusion increase, consumers are likely to rely on familiar online information sources.

Figure 1
Conceptual Model
Based on the literature review, 13 propositions were formulated and used to construct a comprehensive model of antecedents and outcomes of consumers’ online tourism information confusion. As Figure 1 presents, the model organizes antecedents of online tourism information confusion into two broad categories, with information provider’s perspective comprising too much, similar, and ambiguous online tourism information and information recipient’s perspective consisting of five individual difference variables: internet experience, learning orientation, tolerance of ambiguity, price consciousness, and need for cognition. In addition, the model organizes outcomes of online tourism information confusion as comprising five confusion reduction strategies: clarify the buying goals, share/delegate the purchase, abandon the purchase, seek additional information, and rely on familiar online information sources. Each of these constructs provide online tourism marketers the opportunity to better understand the causes of online tourism information confusion as well as consumers’ reactions to address such issues.

**DISCUSSIONS AND CONCLUSION**

A better understanding of online information confusion will help clarify its relationship to related constructs and thus may ultimately increase synergy among the various research streams examining information processing approach. The model proposed in this study is likely to help tourism marketers, managers, and researchers to understand a number of factors that could cause consumers’ online tourism search confusion, as well as what strategies they could utilize to address it. This would provide tourism marketers a better insight on how to manage the quality and quantity of online tourism information for different market segments as well as develop online target-marketing communications more effectively.
One of the major theoretical contributions of this study is that the proposed model integrates two perspectives of consumers’ confusion literature: information provider and recipient perspectives. This enables researchers to identify the key factors that lead to more or less online confusion from a more holistic overview. The model also provides opportunities for tourism researchers to empirically examine the extent to which each of three confusion dimensions might lead to which one of consumers’ confusion reduction strategies.

The managerial implications of the model for online tourism marketers who want to address consumers’ confusion are several. First, the importance of online information quantity should be noted. Information overload is not merely caused by a proliferation of websites, but also by an increase in the amount of decision-relevant information on a given tourist product. Online tourism marketers should consider the bounded-rationality (Decrop & Snelders, 2005) of consumers in relation to the volume and diversity of the information generated by a large number of tourism websites. While an exponential increase of tourism websites might be inevitable due to the low cost of online marketing and growing competition between tourism businesses, online marketers should be more cautious about managing and designing their own websites to control and allocate the amount of information contained in limited web space. This would help not only reduce the chance of tourists’ overload confusion to their websites, but also differentiate their concise websites from other information overwhelming ones.

Nevertheless, the execution of the above information quantity control should be paralleled with information quality management, for that the lack of clear, comprehensible online information is also likely to cause another type of online confusion: ambiguous confusion. Consumers who are confused by unclear stimuli, or who suffer from partial miscomprehension are very likely to seek information elsewhere (i.e., find other tourism websites) that can help
them clarify their choice environment. Therefore, online tourism marketers and advertisers should avoid using any misleading or ambiguous words, terms, sentences, or descriptions in their content, while at the same time providing important links which could quickly direct consumers to other necessary information they need for purchase decisions. It is also important for online tourism marketers to constantly update website information. However, it should be noted that either a too quick or too slow information update could easily lead consumers to question the accuracy and reliability of the website. Price and any clauses pertaining to a product or service should be clearly specified in order to enhance the creditability and reduce the uncertainty of the website. All in all, online tourism website should offer high-quality content that is relevant, precise, timely and up-to-date, as well as providing efficient and usable search engines. However, as mentioned earlier, the pursuit of good information quality is still meaningless if information quantity exceeds the acceptable level that a person is capable of digesting. Consequently, in all cases, tourism website managers and advertisers should strive to find a balance between the quantity and quality of their online posting.

It is also noted that a lack of distinct positioning of one tourism website from others can lead to impressions of similarity and consumers perceiving nothing special about those websites. There already has evidence showing that the high similarity of information unable consumers to narrow down the number of products to choose from and can thus produce choices overload (Jacoby et al., 1974; Leek & Kun, 2006). Therefore, it would be essential for online tourism marketers and website designers to design websites that are easily distinguishable from others who provides similar products and services.

The model also proposes that a number of individual characteristics are important antecedents of online confusion, as they might greatly influence one’s motivation to rationalize
and process stimuli. Online tourism marketers and advertisers need to consider tailoring their communication strategies to different segments based on those developed propositions. Since online users who are low in learning orientation, price consciousness, cognition need, and Internet experience and high in ambiguity tolerance are more likely to experience confusion because of their lower motivation/ability to process external stimuli, they may need a different communication strategy than their counterparts. Online communication strategies developed for these types of consumers might be more effective if online tourism marketers provide simple, easy to comprehend information with affective cues. As ELM theory (Petty & Cacioppo, 1986) suggests, people who are either unmotivated or unable to process issue-relevant information are most likely to rely on simple cues or personal inferences derived from the message. Therefore, online communication materials for this type of consumers may need to include one or more peripheral cues that could help attract their attention and arouse their interest. Furthermore, for individuals with low motivation and/or ability to process information, information content should be conveyed and illustrated in a more clear, detailed, and understandable context, while communication materials developed for individuals with high motivation and/or ability to process information could include more information and links that help to answer any concerns and issues relevant to purchase decisions because they are willing to perform more online information search and processing.

In conclusion, if online tourism marketers intend to address online users’ confusion in order to gain a competitive advantage, they first need to identify the sources of confusion. This study proposes that online tourism marketers should first examine their online presence and messages in relation to the elements which could cause confusion, namely: too much, too similar, and too ambiguous information. In addition, individuals characteristics discussed in this
study that might prone consumers to confusion can also serve as important criteria for online
tourism marketers to develop more customized communication strategies for those different
segments.

As with any other research, the present study is not free from limitations. One of the
limitations is that this study proposed a theoretical model based on previous literature and
existing theories, but did not test the model. Without the empirical test on the model, the current
research cannot confirm or disconfirm the validity of those propositions. This proposed model
only provides basic idea and directions for future research. Further research effort is necessary to
confirm the empirical value of this proposed model.

Another limitation is that this study only includes five individual characteristics that
might prone online consumers to confusion. It is possible that there are many other individual
difference variables that could influence individuals’ proneness to confusion, so that such
variables and their relationships with all three online confusion dimensions should be explored as
well.
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SECOND PAPER
ANTECEDENTS AND OUTCOMES OF TRAVELERS ONLINE TOURISM
CONFUSION: AN INFORMATION RECIPIENT PERSPECTIVE

INTRODUCTION

The rapid advancement of online technologies in recent years has changed the way tourism organizations conduct business. In today’s tourism market, most tourism businesses have adopted Internet as one of their primary distribution channels because of its low cost and high speed in disseminating information to prospective customers (Law, Qi, & Buhalis, 2010). Internet also provides a number of benefits for consumers such as providing immediate access to the most up-to-date information, comparing different product categories, interacting with current and previous users of different tourism products, and making various types of bookings online. While the contributions of online technologies to tourism industry and consumers have been largely emphasized and researched, little research attention has been paid to the possible negative aspects of such tourism e-commerce model.

Consumer confusion (Matzler, Bidmon, Faullant, Fladnitzer, & Waiguny, 2005) might be a notable side effect of such tourism e-commerce mode. Research in psychology (e.g., Miller, 1956) and marketing (e.g., Jacoby, Speller, & Kohn, 1974) have suggested that humans have a limited capacity to process information and that an excessive amount of information would negatively influence individuals’ decision-making. As Choi, Lehto and Oleary (2007) argued, although online technologies have provided travel organizations (both public and private) with speedy and efficient delivery of rich information without geographical confinement, consumers are often bombarded with information provided by multiple sources and feel overwhelmed.
before finding intended information. As such, consumers might not be able to comprehend all these available information and use them to make their purchase decisions. Confusion could thus occur, and this issue, however, has not received much research attention in the tourism literature. As confusion has been associated with several unfavorable consequences, such as negative word-of-mouth (Turnbull, Leek, & Ying, 2000), dissatisfaction (Foxman, Muehling, & Berger, 1990; Zaichkowsky, 1995), cognitive dissonance (Mitchell & Papavassiliou, 1999), decision postponement (e.g. Huffman & Kahn, 1998; Jacoby & Morrin, 1998), shopping fatigue (Mitchell & Papavassiliou, 1997), reactance (Settle & Alreck, 1988), decreased loyalty and trust and confusing other consumers (Foxman, Berger, & Cote, 1992; Foxman et al., 1990), there is an urgent need for tourism practitioners and researchers to identify the causes and consequences of online information confusion. This study aims to empirically examine this issue from information receiver’s perspective.

Individual differences might be important determinants of online information confusion, as individual features such as demographic variables, personality traits, learning styles, motivations, and etc. have been examined as important factors that could influence one’s information search and processing approach (Kim, Lehto, & Morrison, 2007; Roedder, 1981). Normally, individuals who tend to put much effort and time on searching and processing online information are less likely to have confusion issues as opposed to those who spend less effort and time. Using this logic, online tourism marketers should strive to identify which individual characteristics would affect consumers’ information search and processing effort, so that they can develop more customized online communication strategies for different segments to reduce or avoid the possibility of consumers’ confusion. This study thus proposes three individual characteristics: learning orientation, price consciousness, and the need for cognition as important
traits of this kind. The underlying mechanisms in which these variables predispose consumers to online confusion are elaborated in the later discussion. Furthermore, based on a review of published research on confusion issues, this study proposes five confusion reduction strategies that consumers frequently use as important outcomes of consumers’ online confusion. These five strategies are: to clarify the purchase goal, to share/delegate the purchase, to abandon the purchase, to seek additional information, and to rely on familiar information sources.

To summarize, the purpose of this study is to examine the relationship between three individual characteristics and consumers’ online confusion as well as the relationship between consumer confusion and five confusion reduction strategies in the context of online tourism domain. A research model with six hypotheses is developed and tested utilizing data collected from 427 tourism website users.

LITERATURE REVIEW

Consumer confusion in online tourism domain

Turnbull et al. (2000, p.144) defined confusion as “consumer failure to develop a correct interpretation of various facets of a product/service, during the information processing procedure”. Literature suggests that confusion can be classified into three types: similarity, overload, and ambiguity confusion (Mitchell & Papavassiliou, 1999; Walsh & Hennig-Thurau, 2002). Similarity confusion is defined as “a lack of understanding and potential alteration of a consumer’s choice or an incorrect brand evaluation caused by the perceived physical similarity of products or services” (Mitchell, Walsh, & Yamin, 2004, p. 4). Similarity confusion can be attributed to a great similarity in brand (Walsh & Hennig-Thurau, 2002), quality, attributes, or functions of a number of alternative products. Moreover, too similar information and messages
from different advertisements and commercials would also lead to similarity confusion (Kent & Allen, 1994; Poiesz & Verhallen, 1989). Overload confusion is due to the fact that individuals are overwhelmed by an excessive amount of information that limits one’s ability to process the information precisely (Mitchell et al., 2004). An increase of alternatives and decision-related information on these alternatives would be the cause of overload confusion. Ambiguity confusion occurs when individuals are “forced to re-evaluate and revise current beliefs or assumptions about product or purchasing environment” (Mitchell et al., 2004). Typically, unclear, contradictory, or complicated information (Mitchell et al., 2004; Turnbull et al., 2000) about the products is the main reason for this kind of confusion.

Consumer confusion commonly occurs in highly turbulent businesses with rapid technological change and intensive competition, as consumers would face challenges in digesting extensive amount of rapidly updated information of various product choices to make optimal purchase decisions (Turnbull et al., 2000). Products such as watches (Mitchell & Papavassiliou, 1997), personal computers (Leek & Kun, 2006), and mobile phones (Turnbull, Leek & Ying, 2000) are of this kind. While in offline markets consumers can be confused by these products, services, their attributes, prices, and advertisements (Turnbull et al., 2000), on the internet too much information and too many hits while searching can also lead to confusion (Walsh, Mitchell & Frenze, 2004).

Walsh et al. (2004) argued that these three types of confusion can also be observed on the Internet. According to them, similarity confusion might take place when individuals are browsing too many look-alike websites or reading too similar information from these websites. Ambiguity confusion occurs when individuals question the creditability of certain online businesses. Such confusion could also happen when information or pictures of certain websites
update and disappear too quickly, leading consumers to question the accuracy and reliability of these websites and their provided information. Price is also a potential source of ambiguity confusion, as the exclusion or inclusion of tax is sometimes unclear. Overload confusion can be largely attributed to exponential growth of online websites, unsolicited mails, the vast assortments of e-retailers, and excessive online advertisements. In addition, website design is another important determinant of overload confusion, as “some websites place too much information into limited space deliberately to confuse surfers” (Walsh et al., 2004, p. 18).

The above discussion on the causes of three types of consumer online confusion also applies to online tourism businesses. Since consumers are able to access tourism information from multiple sources such as industry suppliers (e.g., hotels, airlines, restaurants), intermediaries (e.g., travel agents), controllers (e.g., governments and administrative sectors), online social networks, and many non-profit organizations (e.g., destination marketing organizations) (Xiang & Gretzel, 2010) at the same time, they might also be overwhelmed by such extensive amount of tourism information from different sources. Taking a number of online travel booking websites such as Expedia, Orbitz, Travelocity, Priceline, CheapTickets, and etc., for example, these websites provide nearly identical information about flight, hotel, car rental, cruises, and a number of package tours with minor price differences. Besides the name, these websites are quite similar in the design and layout. Therefore, similarity confusion and overload confusion might both take place when consumers are browsing too many of these websites and their content. Ambiguity confusion could also take place when consumers are unable to accommodate themselves to frequently changing prices and quickly moving and disappearing available itineraries of these websites.
From information recipient’s perspective, however, the chance of confusion could vary across different people regardless of the characteristics of the stimuli, as certain individual characteristics would influence one’s information search and processing approach (Foxman et al., 1992). Some individuals like to spend more time and effort on performing information search and processing while others do not (Gursoy & McCleary, 2004). Under normal circumstances, the more effort and time one spends on collecting and processing the information, the lower the chance he or she will be confused by that information. As a result, there is a particular value for online tourism marketers to identify individual characteristics which could affect one’s motivation and effort on information search and processing.

Information processing theory

Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986) demonstrates that the degree to which an individual elaborates the incoming message is determined by his/her motivation and ability to process it. Specifically, when individuals’ motivation or ability is high regarding an issue, they are more likely to access relevant associations, images, and experiences from their memory, carefully review and elaborate on the external information in light of the associations available from memory, and consequently draw an overall evaluation of, or attitude towards, the external information. In this case, incoming message would be processed through the so-called “central route”, in which one’s follow-up attitude towards a product, brand or service results from a detailed analysis of the information a person has been able to collect. An attitude formulated from central route is long-lasting and more indicative of future behavior. In contrast, if people’s motivation or ability is low regarding an issue, they would process the incoming message through the “peripheral route”, in which the follow-up attitude is formed by some simple cues from the message or personal intuitive inferences. An attitude formulated from
the peripheral route is less enduring and less indicative of future behavior (Petty & Cacioppo, 1986). Using ELM’s rationale, this study proposes that three individual characteristics might have important associations with the possibility of consumers confusion in today’s online tourism market.

*Individual characteristics that may affect one’s motivation/ability to process online information*

*Learning orientation*

Strong learning-orientated individuals will strive to comprehend new knowledge and improve their capability in a given activity (DeShon & Gillespie, 2005). According to DeRue and Wellman (2009), high learning-orientated people will demonstrate adaptive and mastery-oriented behaviors when facing challenging situations. That is, they would promote persistence and constantly search new solutions for challenges, which will ultimately lead to sustained or improved levels of performance. In addition, individuals of high learning orientation perceive mistakes as beneficial feedback and opportunities for learning, which often increases their motivation to develop new skills and acquire new knowledge (Gong, Huang, & Farh, 2009). By contrast, people with low learning orientation often try to protect their self-image by exhibiting maladaptive patterns of behavior. Individuals of this kind are easily overwhelmed by different challenges in their work, which makes them unwilling to face further challenges and, in turn, deteriorate their performance (Magnini & Honeycutt, 2003). Moreover, those low learning-orientated individuals often tend to withdraw psychologically from overly challenging situations (Cordes & Dougherty, 1993).

The preceding discussion clearly indicates that learning orientation is an internal mind-set that inspires people to continually improve themselves to achieve mastery (Gong et al., 2009).
Such a personality trait might critically influence one’s motivation to process and comprehend the information received. Since individuals with high learning orientation would strive to develop solutions and demonstrate mastery-oriented behaviors in the face of difficulties, they are likely to exert more effort and time than those with low learning orientation to seek and process more information for a given issue. In line with the rationale of the ELM, high learning-oriented individuals should be those who prefer “central route” information processing, as they are likely to conduct a scrutinized and systematic information search to solve difficulties and avoid confusion. Accordingly, consumers with high learning orientation should be less likely to get confused by extensive amount of online tourism information compared with those of low learning orientation, and this leads to the following hypothesis:

H1: Consumers’ learning orientation will negatively influence their (a) similarity, (b) overload, and (c) ambiguity confusion on online tourism websites.

Price consciousness

Price represents the amount of money that must be sacrificed in order to engage in a given purchase transaction, and therefore higher prices negatively influence purchase probability (Lichtenstein, Ridgway & Netemeyer, 1993; Raab, Mayer, Kim & Shoemaker, 2009). According to Lichtenstein, Ridgway, and Netemeyer (1993), price consciousness can be defined as “the degree to which the consumer focuses exclusively on paying a low price” (p. 235). Therefore, price conscious individuals are concerned about seeking a low price in the marketplace, and they derive emotional value and entertainment from shopping for lower prices (Alford & Biswas, 2002). Most studies (e.g., Heo & Lee, 2011; Sinha & Batra, 1999) hold that price consciousness is an attitude-like enduring predisposition (a cross-situational, evaluative tendency) that varies in
intensity across different individuals. Due to different upbringing and socialization experiences, people would place different levels of emphasis on the value of being thrifty as well as the presence/absence of relevant cognitive beliefs about the importance of saving money (Inglehart, 1989). As Jin, He, and Song (2012) argued, price-value conscious consumers are concerned with finding the best value for money so that their purchasing criteria and shopping approach are systematic, thorough and efficient.

In today’s online tourism market, finding the best deal could be a time-consuming task which requires high search effort, as the comparison on a wide variety of tourism products is usually necessary. Driven by the desire to find the best deal, a price conscious individual would be highly motivated to collect and process all available online tourism information, as well as make multiple comparisons on the information from different sources. Following the rationale of the ELM, price-value conscious consumers should be those who prefer to process information through the “central route”, in which incoming information will be scrutinized and compared thoroughly. In this sense, people who are very conscious about price are less likely to experience confusion in the process of online tourism information search than do those who are not price conscious. Therefore, the following hypothesis is proposed:

H2: Consumers’ price consciousness will negatively influence their (a) similarity, (b) overload, and (c) ambiguity confusion on online tourism websites.

Need for cognition

Cohen, Stotland and Wolfe (1955) are among the first to introduce the concept of need for cognition, defined as “a need to structure relevant situations in meaningful, integrated ways. It is a need to understand and make reasonable the experiential world” (p. 291). They suggested that
the failure to satisfy such need could bring about “feelings of tension and deprivation”, which will induce “active efforts to structure the situation and increase understanding” (Cohen et al., 1955, p. 291). Later, Cacioppo and Petty (1982) further conceptualized the need for cognition (NFC) as people’s intrinsic motivation and enjoyment in effortful information processing. A number of previous studies have supported that NFC differences will lead to behavioral differences regarding how people approach cognitive tasks. For instance, studies reported that people of a higher NFC are better than ones of a lower NFC at remembering previously presented information (Cacioppo, Petty, & Morris, 1983) and are more likely to engage in issue-relevant thinking (Axsom, Yates, & Chaiken, 1987). Moreover, compared to low NFC individuals, high NFC ones would enjoy dealing with difficult tasks more and display a stronger propensity to acquire new information (Cacioppo, Petty, Feinstein, & Jarvis, 1996). High NFC subjects would also process information more intensively and balance all relevant information more accurately before making a judgment (Putrevu, Tan, & Lord, 2004). There is also evidence showing that NFC positively influences people’s tendency to devote attention exclusively to an ongoing cognitively challenging task (Lord & Putrevu, 2006) and negatively influences the tendency to ignore, avoid, or distort new information (Venkatraman, Marlino, Kardes, & Sklar, 1990). Collectively, these previous studies consistently demonstrated that high NFC individuals enjoy effortful thinking and reasoning than do low NFC ones. Therefore, high NFC individuals, according to the ELM, should be those who prefer to process incoming message through the “central route”, as they would enjoy performing a thorough and systematic analysis and reasoning. People of this type should be less likely to experience confusion than those low NFC ones when browsing a large number of tourism websites with extensive amount of tourism information. Therefore, the current study postulates that NFC is another critical personality trait
negatively influencing consumers’ disposition to online tourism confusion. The following hypothesis is thus formulated:

\[ H3: \text{Consumers’ need for cognition will negatively influence their (a) similarity, (b) overload, and (c) ambiguity confusion on online tourism websites.} \]

Outcomes of online tourism confusion: Consumers’ confusion reduction strategies

In the face of confusion, customers will consciously or unconsciously adopt several confusion reduction strategies (Matzler, Waiguny, & Fuller, 2007). According to Mitchell and Papavassiliou (1997), a number of generic confusion reduction strategies that consumers frequently use are as follows: (1) do nothing and ignore confusion; (2) postpone the purchase; (3) abandon the purchase; (4) Share/delegate the purchase decision; (5) clarify the buying goals; (6) seek additional information; (7) narrow down the set of alternatives.

Among these strategies, “do nothing and ignore confusion” can hardly be regarded as a reduction strategy because an individual will do nothing only when the level of confusion becomes unacceptable (Mitchell & Papavassiliou, 1997). Furthermore, the adoption of this strategy usually represents consumers unplanned reaction (Drummond, 2004), which provides little meaningful implication for online tourism marketers to develop appropriate solutions. Therefore, the current study excludes this strategy as one that online consumers will utilize to address confusion.

“Postpone the purchase” refers to a delay in order to better cope with confusion issues related to the purchase. This strategy usually contributes to the deployment and execution of the other five confusion reduction strategies, because this intentional delay allows consumers to have more time and effort to compare more choices, search additional information, involve third
parties in the purchase decision, re-clarify the buying goals, or simply abandon the purchase altogether. Given that this strategy is usually not the final solution to address confusion the current study excludes this strategy as one that online consumers will utilize to address confusion.

“Share/delegate the purchase” refers to a confused individual including third-party persons (e.g., spouse, friends, family members) into the purchase decision or even completely delegating the decision to these third parties. The utilization of this strategy could be of great help when those involved partners have issue-related experience or expertise that can offer useful suggestions or make appropriate purchase decisions for the confused buyer. Nevertheless, this strategy could also confuse the buyer more and inhibit the decision-making process when involved partners provide contrasting opinions with the buyer’s opinion, or convey ambiguous information about the purchase. As a result, including right partners into the decision making process is critical for those confused consumers who want to use this strategy.

Clarifying the buying goals denotes one’s subjective assessment on whether the purchase can fulfill the needs of interest or not, and this strategy is usually adopted along with seeking additional information. For instance, a consumer might search more information and compare more tourism websites to clarify which destination is the best choice for a vacation.

Seeking additional information is one of the most commonly used confusion reduction strategies (Drummond, 2004). Nevertheless, the content of newly acquired information determines the effectiveness of this strategy on reducing confusion. If newly collected information is contradictory and confusing, it may even result in more serious confusion. Therefore, online tourism marketers should note that presenting good quality information not
only reduces the chance of tourists’ pre-purchase confusion, but also helps those already confused consumers who attempt to seek more information to clarify their confusion.

Narrowing down the choice set is usually the most frequently used strategy to reduce information overload (Mitchell & Papavassiliou, 1999). This strategy helps to discard choices which do not meet the criteria during the decision making process. Research indicates that experienced consumers are more adept at forming choice-sets (Jacoby, 1977) and their experience helps to provide more selective perspectives (Neisser, 1976). It is noted in the literature that “narrowing down the choice set” basically means that consumers rely on familiar brands (Rudolph & Schweizer, 2003). In the context of online tourism information searches, this strategy can be regarded as consumers’ reliance on familiar websites and sources for their purchase decisions. Therefore, this study revises this strategy to “rely on familiar online information sources” to better fit into the context of this study.

Collectively, the preceding strategies may also be employed by those who are confused by too many, too similar or too ambiguous online tourism products. This study thus includes these strategies as important outcomes of three types of confusion, and all three types of confusion would possibly lead to the utilization of one or more of these strategies respectively. The following hypotheses are thus proposed:

H4: Consumers’ ambiguity confusion on online tourism websites will positively influence their confusion reduction strategies of (a) sharing/delegating the purchase; (b) seeking additional information; (c) relying on familiar websites and sources; (d) abandoning the purchase; (e) clarifying the purchase goals.
H5: Consumers’ overload confusion on online tourism websites will positively influence their confusion reduction strategies of (a) sharing/delegating the purchase; (b) seeking additional information; (c) relying on familiar websites and sources; (d) abandoning the purchase; (e) clarifying the purchase goals.

H6: Consumers’ similarity confusion on online tourism websites will positively influence their confusion reduction strategies of (a) sharing/delegating the purchase; (b) seeking additional information; (c) relying on familiar websites and sources; (d) abandoning the purchase; (e) clarifying the purchase goals.

**METHODOLOGY**

*Sample and procedure*

Data of this study was collected using an online self-administrated questionnaire. A convenience sampling approach was utilized and participants were online consumer panels randomly generated by an U.S. well-known online survey company. These online consumer panels were frequent online users who resident in different regions of the United States. Since this study mainly focused on consumers’ confusion issues towards online tourism information and websites, only those consumers who ever used any online tourism websites (at least two different websites) to book an itinerary for an international travel or a domestic travel within last two years were selected as the participants. After a three-week survey period, a total of 427 responses were collected for statistical analysis.

*Measurements*
The online survey for this study consisted of nine sections, with the first one measuring the characteristics of consumers last trip as well as their experience of using tourism websites to book a trip, the following six sections measuring six constructs of research interests respectively, the eighth section measuring five consumers confusion reduction strategies, and the last one measuring respondents’ demographics. The scale used to measure consumers confusion towards online tourism websites was based on the scale utilized in Walsh and Mitchell's (2005) study with minor modifications. Three items were used to measure ambiguity confusion ($\alpha=.78$; sample item: “I felt confused due to frequently updated information of those websites”), four items for overload confusion, ($\alpha=.84$; sample item: “I felt confused because there are so many travel booking websites to choose from”), and three items for similarity confusion ($\alpha=.83$; sample item: It was difficult to choose one travel booking website that best satisfied my need because many of them look quite similar”. For measures of learning orientation, Button, Mathieu, and Zajac's (1996) eight-item scale was employed ($\alpha=.87$; sample item: “I prefer to work on tasks that force me to learn new things”). To measure respondents’ price consciousness, four items from Lichtenstein et. al's (1993) study were adopted ($\alpha=.79$; sample item: “I will grocery shop at more than one store to take advantage of low prices”). As for the measure of need for cognition (NFC), fourteen items from Cacioppo, Petty and Feng Kao’s (1984) study were utilized ($\alpha=.94$; sample item: “I would prefer complex to simple problems”). Five confusion reduction strategies were respectively measured by five single items contextualized in consumers’ trip planning using tourism websites (1. I would ask a friend of mine who is familiar with travel booking websites and would rely on his or her decision; 2. I would collect more information I need from other media (e.g., TV, magazines, off-line travel agent, and etc.); 3. I would simply rely on those travel booking websites that I am familiar with; 4. I would just
abandon my trip; 5. I would clarify my purchase goals again). All items were measured on a 5-point Likert-type scale ranging from 1 = strongly disagree to 5 = strongly agree.

Data analysis

The Statistical Package for Social Sciences (SPSS) was used for descriptive and inferential analyses to provide respondents’ profiles and Cronbach’s reliability. Cronbach’s α test was carried out to examine internal consistency and construct validity of constructs. Structural equation modeling (SEM), using the M-plus 6 computer program (Byrne, 2011), was applied to test the proposed hypotheses of H1, H2, and H3. SEM enables a number of constructs explained by multiple indicators to be modeled, while also taking into account the unreliability of the indicators. In addition, SEM considers unknown reliability of the measures and ranks the measures in terms of their importance (Bacon & Bacon, 1997). Since each of five confusion reduction strategies was measured by one single item, a series of simple regression analysis were performed to test the proposed hypotheses of H4, H5, and H6

RESULTS

The sample of this study comprised 210 males (49.2%) and 217 females (50.8%). As presented in Table 1, the majority of respondents were within 20 to 39 years old (73.1%) with a high educational background (87.3% have college degree or higher). While 22.2% of respondents had an annual income less than $25,000, 64.5% of respondents had an annual income within $25,000 to $85,000; 13.3% of respondents earned at least $85,000 or higher.

Table 1
Demographic Profile of the Sample

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Male</td>
<td>210</td>
<td>49.2</td>
</tr>
<tr>
<td>Female</td>
<td>217</td>
<td>50.8</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-19</td>
<td>14</td>
<td>3.3</td>
</tr>
<tr>
<td>20-29</td>
<td>166</td>
<td>38.9</td>
</tr>
<tr>
<td>30-39</td>
<td>146</td>
<td>34.2</td>
</tr>
<tr>
<td>40-49</td>
<td>44</td>
<td>10.3</td>
</tr>
<tr>
<td>50-59</td>
<td>43</td>
<td>10.1</td>
</tr>
<tr>
<td>60 and over</td>
<td>14</td>
<td>3.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual income</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$25000</td>
<td>95</td>
<td>22.2</td>
</tr>
<tr>
<td>$25000-$29999</td>
<td>36</td>
<td>8.4</td>
</tr>
<tr>
<td>$30000-$34999</td>
<td>42</td>
<td>9.8</td>
</tr>
<tr>
<td>$35000-$39999</td>
<td>29</td>
<td>6.8</td>
</tr>
<tr>
<td>$40000-$49999</td>
<td>56</td>
<td>13.1</td>
</tr>
<tr>
<td>$50000-$59999</td>
<td>33</td>
<td>7.7</td>
</tr>
<tr>
<td>$60000-$84999</td>
<td>79</td>
<td>18.5</td>
</tr>
<tr>
<td>&gt;$85000</td>
<td>57</td>
<td>13.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; high school</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>High school graduate/G.E.D.</td>
<td>52</td>
<td>12.2</td>
</tr>
<tr>
<td>Some college or technical school</td>
<td>110</td>
<td>25.8</td>
</tr>
<tr>
<td>Associate degree/Certificate</td>
<td>61</td>
<td>14.3</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>151</td>
<td>35.1</td>
</tr>
<tr>
<td>Graduate work</td>
<td>13</td>
<td>3.0</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>39</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Measurement model
According to Anderson and Gerbing’s (1988) two step approach, a confirmatory factor analysis (CFA) should be performed first to ensure confidence in the measurement model, which specifies the relations of observed indicators to their underlying constructs. As presented in Table 2, most of the goodness-of-fit indices for the measurement model were within an acceptable range except for the $X^2$ value. The $X^2$ value for the proposed model was found to be statistically significant ($X^2 = 8687.76$, $df = 630$, $p = .00$). As noted by Joreskog (1993, p 309) “since chi-square is $N-1$ times the minimum value of the fit function, the chi-square test tends to be large in large samples”. Because of the large effect of sample size on the chi-square values (and associated $P$ values), other fit indices were also selected to measure the fit of the tested models (Baumgartner & Homburg, 1996). The fit between the measurement model and data was thus assessed by the following standard indices: comparative fit index (CFI) = .91; Tucker-Lewis index (TLI) = .90. Furthermore, the indicators of residuals, standardized root mean square residual (SRMR) = .05, and root mean square error of approximation (RMSEA) was .06. All of the above indicated that the measurement model fitted the data well and the overall fit indices were appropriate.

Table 2

<table>
<thead>
<tr>
<th>Model</th>
<th>$N$</th>
<th>$X^2$</th>
<th>$df$</th>
<th>$p$</th>
<th>CFI</th>
<th>TLI</th>
<th>SRMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement model</td>
<td>427</td>
<td>8687.76</td>
<td>630</td>
<td>&lt; .01</td>
<td>.91</td>
<td>.90</td>
<td>.05</td>
<td>.06</td>
</tr>
<tr>
<td>Structural model</td>
<td>427</td>
<td>1335.52</td>
<td>579</td>
<td>&lt; .01</td>
<td>.91</td>
<td>.90</td>
<td>.06</td>
<td>.05</td>
</tr>
</tbody>
</table>
Two types of validity measures, convergent and discriminant validity, were examined.

Convergent validity was tested by examining t values of each item’s factor loading on its underlying construct (Anderson & Gerbing, 1988). All t-values associated with each completely standardized factor loading for each indicator were found to be higher than 1.96, suggesting significance at 0.05 significance level. This indicated that convergent validity of all the indictors were established. Discriminant validity was tested by comparing intercorrelations of factors with the square root of the average variance (i.e. variance extracted estimate) for each factor (Hatcher, 1994). Since the estimate for variance extracted for each factor was at least 0.5 and exceeded any of the intercorrelations of the factors, discriminant validity of all constructs were established (Fornell & Larcker, 1981).

Table 3
Standardized Path Coefficients of Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Reliability Coefficient</th>
<th>Path Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning orientation</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>1. The opportunity to do challenging work is important to me.</td>
<td></td>
<td>.77</td>
</tr>
<tr>
<td>2. When I fail to complete a difficult task, I plan to try harder the next time I work on it</td>
<td></td>
<td>.52</td>
</tr>
<tr>
<td>3. I prefer to work on tasks that force me to learn new things.</td>
<td></td>
<td>.79</td>
</tr>
<tr>
<td>4. The opportunity to learn new things is important to me.</td>
<td></td>
<td>.74</td>
</tr>
<tr>
<td>5. I do my best when I’m working on a fairly difficult task.</td>
<td></td>
<td>.61</td>
</tr>
</tbody>
</table>
6. I try hard to improve on my past performance.  .53

7. The opportunity to extend the range of my abilities is important to me.  .74

8. When I have difficulty solving a problem, I enjoy trying different approaches to see which one will work.  .63

Price consciousness  .79

9. I will grocery shop at more than one store to take advantage of low prices  .56
10. The money saved by finding low prices is usually not worth the time and effort*  .73
11. I would never shop at more than one store to find low prices*  .70
12. The time it takes to find low prices is usually not worth the effort*  .84

Need for Cognition  .94

13. I would prefer complex to simple problems  .75
14. I like to have the responsibility of handling a situation that requires a lot of thinking  .82
15. Thinking is not my idea of fun*  .77

16. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities*  .77
17. I try to anticipate and avoid situations where there is likely chance I will have to think in depth about something*  .66
18. I only think as hard as I have to*  .70
19. I prefer to think about small, daily projects to long-term ones*
20. I like tasks that require little thought once I have learned them*
21. The idea of relying on thought to make my way to the top appeals to me.
22. I really enjoy a task that involves coming up with new solutions to problems
23. Learning new ways to think does not excite me very much*
24. I prefer my life to be filled with puzzles that I must solve.
25. The notion of thinking abstractly is appealing to me.
26. I usually end up deliberating about issues even when they do not affect me personally.

Ambiguity confusion

When I used travel booking websites to plan my last vacation,....

27. ....I felt insufficiently informed by those online travel booking websites
28. ....the information I collected from those online travel booking websites was often vague
29. ....I felt confused due to frequently updated information of those online travel booking websites
30. ....the information I collected from those online travel booking websites often
confused me

Overload confusion  .84

31. …I felt confused because there are so many online travel booking websites to choose from  .79
32. …the more online travel booking websites I browsed, the more confusion I experienced  .83
33. …I felt overwhelmed by too much information provided by those online travel booking websites  .78

Similarity confusion  .83

34. …it was difficult to choose one online travel booking website that best satisfied my needs because many of them looked quite similar  .84
35. …it was difficult to distinguish those online travel booking websites as they usually look similar  .85
36. …there are so many similar online travel booking websites that a comparison of them is nearly impossible  .66

Note: * Denote reverse coded

All paths are significant (p < .01)

*Structural model and hypothesis testing*

With measurement model demonstrating good fit, a structural model depicting each of first three hypotheses was then tested. Again, although the structural model had a significant $X^2$ value ($X^2 = 1335.52, df = 579, p = .00$), the other model fit indices were within an acceptable
range: comparative fit index (CFI) = .91; Tucker-Lewis index (TLI) = .90; Standardized Root Mean Square Residual (SRMR) = .06, and Root Mean Square Error of Approximation (RMSEA) was .05. All these suggested that the structural model fitted the data well (See Table 2).

The first three hypotheses (H1a, H1b and H1c) indicated that the learning orientation will negatively influence ambiguity, overload, and similarity confusion respectively. All these three hypotheses were not supported as the standardized path coefficients for H1a, H1b and H1c were -.03, .17 and .07 respectively, and parameter estimates for all three were not statistically significant (see Table 4). H2a, H2b and H2c stated that price consciousness will negatively influence ambiguity, overload, and similarity confusion respectively. The path coefficients for these three hypotheses were -.16, -.15, and -.11 respectively, and parameter estimates for H2a and H2b were statistically significant and for H2c was marginally significant. This findings provided support for H2a, H2b and H2c. H3a, H3b, and H3c proposed that need for cognition will negatively influence ambiguity, overload, and similarity confusion respectively. The path coefficients for H3a, H3b, and H3c were -.35, -.37, and -.17 respectively. While parameter estimates for H3a and H3b were statistically significant, parameter estimate for H3c was not statistically significant. Therefore, H3a and H3b were supported, while H3c was not supported.

Table 4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Estimate</th>
<th>t- Value</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning orientation  Ambiguity confusion</td>
<td>-.03</td>
<td>-.25</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

57
<table>
<thead>
<tr>
<th>Learning orientation</th>
<th>Overload confusion</th>
<th>Similarity confusion</th>
<th>Not Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning orientation</td>
<td>.17</td>
<td>1.63</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Learning orientation</td>
<td>.07</td>
<td>.70</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Price consciousness</td>
<td>-1.6</td>
<td>-2.79**</td>
<td>Supported</td>
</tr>
<tr>
<td>Price consciousness</td>
<td>-1.5</td>
<td>-2.57*</td>
<td>Supported</td>
</tr>
<tr>
<td>Price consciousness</td>
<td>-1.1</td>
<td>-1.83†</td>
<td>Marginally Supported</td>
</tr>
<tr>
<td>Price consciousness</td>
<td>-1.3</td>
<td>-2.83*</td>
<td>Supported</td>
</tr>
<tr>
<td>Price consciousness</td>
<td>-1.3</td>
<td>-2.78**</td>
<td>Supported</td>
</tr>
<tr>
<td>Need for Cognition</td>
<td>-1.7</td>
<td>-1.17</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

**Note:**

† P < .10, *P < .05, **P < .01

Regression analyses for H4, H5, H6

H4 proposed that consumers’ ambiguity confusion will positively influence each of the five confusion reduction strategies. Results of a series of regression analysis indicated that consumers ambiguity confusion only positively influenced the strategy of relying on familiar
H5 suggested that consumers overload confusion will positively influence each of the five confusion reduction strategies. Table 5 reported that consumers overload confusion positively influenced three confusion reduction strategies, which were share/delegate the purchase \((b = .08, p < .10)\), seek additional information \((b = .11, p < .05)\), and rely on familiar information sources \((b = .10, p < .05)\). Such findings supported H5a, H5b, and H5c, but did not support H5d and H5e.

H6 proposed that consumers’ similarity confusion will positively influence each of the five confusion reduction strategies. Table 5 revealed that consumers’ similarity confusion did not positively influence any one of the five proposed strategies \((all \ p > .10)\). Therefore, H6a, H6b, H6c, H6d, H6e were all not supported.

Table 5

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Estimate</th>
<th>t- Value</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambiguity confusion (\rightarrow) to share/delegate the purchase</td>
<td>0.02</td>
<td>0.30</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Ambiguity confusion (\rightarrow) to seek additional information</td>
<td>0.05</td>
<td>1.01</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Ambiguity confusion (\rightarrow) to rely on familiar information sources</td>
<td>0.16</td>
<td>3.23**</td>
<td>Supported</td>
</tr>
<tr>
<td>Confusion Type</td>
<td>Effect Size</td>
<td>p-value</td>
<td>Support Status</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------</td>
<td>---------</td>
<td>----------------</td>
</tr>
<tr>
<td>Ambiguity confusion → to abandon the purchase</td>
<td>-0.26</td>
<td>-5.47**</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Ambiguity confusion → to clarify the purchase goal</td>
<td>0.01</td>
<td>0.26</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Overload confusion → to share/delegate the purchase</td>
<td>0.08</td>
<td>1.67†</td>
<td>Marginally Supported</td>
</tr>
<tr>
<td>Overload confusion → to seek additional information</td>
<td>0.11</td>
<td>2.25*</td>
<td>Supported</td>
</tr>
<tr>
<td>Overload confusion → to rely on familiar information sources</td>
<td>0.10</td>
<td>2.10*</td>
<td>Supported</td>
</tr>
<tr>
<td>Overload confusion → to abandon the purchase</td>
<td>-0.20</td>
<td>4.15**</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Overload confusion → to clarify the purchase goal</td>
<td>0.04</td>
<td>0.80</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Similarity confusion → to share/delegate the purchase</td>
<td>0.03</td>
<td>0.70</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Similarity confusion → to seek additional information</td>
<td>0.07</td>
<td>1.48</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Similarity confusion → to rely on familiar information sources</td>
<td>0.07</td>
<td>1.51</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Similarity confusion</td>
<td>0.06</td>
<td>1.23</td>
<td>Not Supported</td>
</tr>
<tr>
<td>----------------------</td>
<td>------</td>
<td>------</td>
<td>---------------</td>
</tr>
<tr>
<td>to abandon the purchase</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Similarity confusion</th>
<th>0.03</th>
<th>0.53</th>
<th>Not Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>to clarify the purchase goal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:

† P < .10, *P < .05, **P < .01

**DISCUSSIONS AND CONCLUSION**

As expected, the findings showed that the level of consumers’ price consciousness would negatively influence their similarity, overload, and ambiguity confusion on online tourism information and websites. Such result concurred with the logic of some researchers’ (e.g., Jin et al., 2012) argument that high price conscious consumers should have a systematic, thorough and efficient shopping approach to find the best value for money. Prior studies (Grewal & Marmorstein, 1994; Konucs, Verhoef, & Neslin, 2008) also found that price conscious consumers are willing to search across several channels for price comparisons for their purchase decisions. Therefore, with a higher willingness to search and compare deals from multiple sources, it was logical to find that high price conscious individuals are less likely to fall into three types of online confusion, as reported in this study.

While the findings of this study indicated that consumers’ need for cognition would negatively influence their ambiguity and overload confusion on online tourism information and websites, such result was not found in the case of similarity confusion. One possible explanation may be because browsing similar tourism information and websites is a less challenging kind of information processing for consumers. Compared with comprehending and digesting ambiguous
and overwhelming tourism information that requires effortful thinking and reasoning, identifying similarities and differences among similar tourism information and websites may take less time and effort. This might explain why the present study found need for cognition (Cacioppo and Petty, 1982), an individual’s intrinsic motivation and enjoyment to engage in effortful information processing, only helps reduce consumers ambiguity and overload confusion, but not similarity confusion toward tourism content and websites.

Nevertheless, it is surprising that the current study did not find consumers’ learning orientation negatively influenced their similarity, overload, and ambiguity confusion on tourism websites. One possible explanation for such findings might be the perception hold by participants toward searching and browsing tourism websites. Specifically, participants might consider browsing tourism information and websites as a more relaxing and entertaining activity rather than as a learning opportunity. As Vogt and Fesenmaier (1998) suggested, consumers may conduct tourism information search not only for functional purposes. They may be satisfying other needs to entertain themselves, to share with others, to view pictures to familiarize themselves, or simply to satisfy their curiosity. Cho and Jang (2008) also identified several information value perceptions in addition to functional value during travelers’ pre-trip information search process, such as hedonic value, sensation seeking value and social value. Therefore, tourism information acquisition, for some consumers such as participants of this study, might be a more entertaining experience rather than a functional task or learning opportunity. This might explain why the current study could not find a negative relationship between learning orientation and three types of consumers’ online confusion.

The results of this study also showed that consumers would rely on familiar online information sources rather than four other strategies when experiencing ambiguity confusion toward online tourism websites. Such findings reflect the fact that consumers tend to associate
higher financial and emotional risks with many tourism service decisions due to unique features of tourism products (i.e., intangibility, perishability, heterogeneity) (Sirakaya & Woodside, 2005). Therefore, when consumers concern about the creditability, reliability and accuracy of certain online tourism information or websites (i.e., ambiguity confusion) while planning their trip using a wide range of tourism websites, they are likely to switch to websites that they are familiar with to reduce associated risks involved in the purchase decisions.

The above rationale also applies to when consumers are overwhelmed by too much information on the websites (i.e., overload confusion), as reported in this study. Nevertheless, the findings also indicated that consumers with overload confusion would adopt two other strategies as well, which are share/delegate the purchase and seek additional information. While the strategies of relying on familiar online information sources and sharing/delegating the purchase seem to be plausible outcomes of overload confusion, seeking additional information might be somewhat controversial for those who are already confused by overwhelming tourism content. One possible explanation might be that consumers might want to use other information tools such as books, magazines, TV, or physical travel agents to obtain more concise and comprehensive information and references that are helpful for making their purchase decisions rather than keep being bombarded with too much tourism content on the Internet.

Surprisingly, this study did not find any positive relationship between consumers’ similarity confusion and any one of five confusion reduction strategies. Such findings might imply that similarity confusion may be the least serious problem among the three kinds of confusion. With the fierce competition of online tourism business and the stunning increase of tourism websites, consumers might become accustomed to reading and browsing similar tourism information and websites, and these similar content, compared to ambiguous and overload
information, may not be considered as an unacceptable problem for purchase decisions that needs confusion reduction strategies to address it.

In conclusion, given that research effort on consumers’ confusion is seriously scant in the tourism literature, this study addresses this gap by empirically testing a research model demonstrating the antecedents and outcomes of consumers’ online tourism confusion. Findings of this study also provide meaningful insights and references for online tourism marketers to come up with better online communication and marketing strategies to avoid or minimize the chance of consumers confusion in online tourism domain.

**MANAGERIAL IMPLICATIONS**

The managerial implications from the findings of this study for online tourism marketers who want to address consumers’ confusion are several. Findings of this study suggest that online users who are low in price consciousness and need for cognition are more likely to experience ambiguity and overload confusion because of their lower motivation/ability to process external stimuli. Accordingly, online tourism marketers and advertisers should develop a different communication strategy for these types of people than their counterparts. Online communication strategies developed for these types of consumers might be more effective if more concise and comprehensive information with affective cues are provided. As the ELM (Petty & Cacioppo, 1986) suggests, individuals who are either unmotivated or unable to process issue-relevant information are most likely to rely on simple cues or personal inferences derived from the message. As a result, online communication materials for this type of consumers may need to include one or more peripheral cues that could help draw their attention and arouse their interest. In addition, the content should be conveyed and illustrated in a clearer, more detailed, and simpler context without any misleading or ambiguous words, terms, sentences, or descriptions to
avoid or reduce the chance of their ambiguity confusion. It is also noted that the amount of information contained in limited web space should be more cautiously controlled and allocated for these types of consumers, as they are more easily overwhelmed by the amount of incoming information (i.e., overload confusion) as opposed to individuals with high price consciousness and need for cognition. On the other hand, given online users with high price consciousness and need for cognition possess higher motivation and/or ability to process information, communication materials developed for these individuals could include more information or references that help enhance their understanding of the tourism products and services offered. For example, website designers could add more links in their web pages that direct these individuals to other sources that are helpful to answer their concerns and issues related to purchase decisions.

Findings of this study also suggest that among the three types of confusion, online tourism businesses should consider ambiguity and overload confusion as two priorities to prevent, as consumers are likely to resort to other familiar information sources when suffering from these two types of confusion, as well as share/delegate the purchase and seek additional information when encountering overload confusion. This implies that poor control and management of information quality and quantity on a tourism website can easily lead its potential consumers to choose other information sources to make purchase decisions. Tourism websites with this problem could thus lose lots of business opportunities and their competitiveness, and this issue is particularly critical for those new established online tourism businesses who need to quickly establish its consumer base to stay competitive in today’s increasingly competitive online business environment.

LIMITATIONS
As with other studies, the present study is not free of limitations. Data of this study was collected from a consumer panel generated by an American online survey company. Given the majority of respondents are Americans, the findings of this study have a generalizability concern that whether the proposed model can be applied to different samples in other countries is uncertain. Therefore, it is strongly recommended that future studies should randomly acquire a balanced number of cross-national samples to address this generalizability concern.

In addition, given the data of this study was self-reported and all the independent and dependent variables were obtained from the same raters (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003), common method bias could be another limitation of this study. This study did not separate the source of independent and dependent variables due to limited funding to generate a larger sample size with equal proportion for both dependent and independent variables. Therefore, it is strongly recommended that future studies should set more strict research procedures to minimize common method bias, preferably obtaining measures of independent and dependent variables from different raters.

The cross-sectional design used in this study is also a notable limitation, as it would cause misidentification of the causal relationship between independent and dependent variables as well as inability to observe the changing patterns of subjects across time. Future studies should address these shortcomings by using longitudinal analysis to detect and monitor variations and trends among subjects. Moreover, this study only includes three individual characteristics that might make online consumers prone to confusion as well as five confusion reduction strategies as the outcomes of consumers’ confusion. It is possible that there are many other variables related to individual differences that could influence confusion and many other strategies and
outcomes coming after confusion. Future research should explore all these possible variables as well.
REFERENCES


THIRD PAPER

HOW MATERIALISM INFLUENCES CONSUMERS ECOTOURISM ATTITUDE, INTEREST, AND THEIR WILLINGNESS TO PAY A PREMIUM FOR ECOTOURISM

INTRODUCTION

Ecotourism is a particular kind of alternative tourism closely associated with areas that are environmentally and culturally sensitive, and it was developed in an endeavor to prevent the problems and repercussions resulted from traditional mass tourism (Pipinos and Fokiali 2009). Since ecotourism contributes to both environmental conservation and the economy (Ross and Wall 2004), it has become a significant topic in the tourism field (Weaver and Lawton 2007). Several studies have examined the factors that could influence tourists’ visitation intention and willingness to pay more for ecotourism products, such as tourists’ ecotourism attitude and interest (e.g., Lai and Nepal 2006; Singh, Slotkin, and Vamosi 2007). While the evaluation of tourists’ ecotourism attitude and interest is no doubt a basic prerequisite for successful implementation of ecotourism ventures, an investigation of the antecedents of individuals’ ecotourism attitude and interest could even be more meaningful for ecotourism operators. This investigation may enable operators to gain a better insight on determining strategies that could be adopted or developed to improve consumers’ positive attitude and interest toward ecotourism.

According to McCarty and Shrum (2001), individuals’ fundamental beliefs (e.g. value orientations) would affect their both pro-environmental attitudes and behaviors. Values represent learned beliefs about preferred ways of being, which serve as “guiding principles in the life of a person or other social entities” (Schwartz 1994, p. 21). Rokeach (1973) claimed that values can be distinguished from attitudes in that values represent abstract ideals which are not attached to any specific object, while attitudes focus on specific objects and situations. From this
perspective, an attitude can be defined as a mental state induced by an application of a value to a certain object or situation. These definitions are consistent with a number of researchers’ (e.g., Kim, Borges, and Chon 2006) conclusion that values are the determinants of attitudes and behavior. In line with this rationale, it is critical for ecotourism operators to identify values that might influence individuals’ attitudes and behaviors toward ecotourism products. With this aim, this study chose materialism, an individual value of Western society (Kilbourne and Pickett 2008), to see if it has any significant influences on one’s attitude, interest toward ecotourism and willingness to pay a premium for ecotourism products.

Materialism is a lifestyle which has been part of the Western society for decades (Kilbourne and Pickett 2008). In recent decades, this lifestyle has become a global phenomenon, and the number of people pursuing such a lifestyle has increased exponentially (Kilbourne and Pickett 2008). Materialistic individuals place a great emphasis on the satisfaction in life and happiness derived by the possession of material goods (Belk 1996). This lifestyle, to a certain extent, conflicts with one of the primarily goals of ecotourism: environmental protection. Environmental protection requires drastic decreases in overconsumption and is consequently affected by consumers’ bond to material goods and pleasures (Moisander and Pesonen 2002). Consumers who acquire satisfaction and happiness by material possessions are more likely to be self-centered and are less likely to be fulfilled by engaging in pro-environmental activities compared to individuals who do not value material possessions that much (Tilikidou and Delistavrou 2004). Therefore, a person’s materialistic value, which has been examined as the root cause of many social problems and environmental degradation (Bredemeier and Toby 1960; Kilbourne and Pickett 2008), might be an important individual-based variable that reduces one’s favorable attitude, interest and intention toward ecotourism. Therefore, this study aims to
examine the influence of materialistic value on one’s attitude and interest toward ecotourism by specifically examining its influence on a tourist’s attitude, interest, intention toward ecotourism and his/her willingness to pay a premium for it.

LITERATURE REVIEW

Impact of materialism on ecotourism attitude and interest

Materialism has been conceptualized as an economic consumer value (Inglehart 1981; Richins and Dawson 1992) emphasizing the type and quantity of goods consumed. A number of different, though similar, definitions of materialism have been evolved over time. Belk (1985) viewed materialism as “the importance a consumer attaches to worldly possessions” (p. 291). Rassuli and Hollander (1986) refer it as “a mindset. . . an interest in getting and spending” (p.10). In a more psychological approach, Micken and Roberts (1999) argued that materialistic behaviors reflect “. . . a preference for certainty, with materialists relying on objects not just as identity markers, but identity fixers” (p. 513). Furthermore, Browne and Kaldenberg (1997) characterized materialism as a cluster of values and traits which focus on possessions. While each of these definitions describes materialism in slightly different ways, they share a common base. They all suggest that people seek more in the consumption process than just the utility or instrumental value of the products themselves and that the context of consumption is important.

Reviewing the construct and measurement of materialism in the literature, Richins and Dawson (1992) developed a values-oriented materialism scale that characterizes materialistic value as having three major realms; acquisition centrality, acquisition as the pursuit of happiness, and possession-defined success. Acquisition centrality refers to the central role possessions and their acquisition play in materialists’ lives. This dimension suggests that for
those people who score high on this dimension, materialistic possessions are the focus of their lives. *Acquisition as the pursuit of happiness* refers to materialists’ belief that possessions are essential to their happiness. This factor suggests that possessions are vital for a materialistic consumer’s well-being and satisfaction in life. Finally, *possession-defined success* denotes materialists’ perception and assessment that success is determined by the type of things one owns. This factor relates to the role that possessions play as the evidence of success. Obviously, consumers who share materialistic value obtain happiness and fulfillment through possessions, and they tend to buy more to maintain and increase feelings of happiness and success. As such, materialists are easily motivated to over-consume (Tilikidou and Delistavrou 2004), yet over-consumption is given as one of the reasons for environmental degradation (Peattie 1995). As a number of social scientists argued (e.g., Clapp 2002; Conca 2001), the level of material goods produced and consumed determines the level of natural resources extracted and the level of pollution created. Arguably, production and consumption of material goods in an excessive level would facilitate environmental destruction as reported by Jorgenson’s (2003) study, which examined the relationship between consumption and environmental degradation through a cross-national comparison.

On the other hand, environmental values are highly emphasized by eco tourists and have been suggested to be highly influential in the development of ecotourism behavior (Wood 2002). Environmental values are those values held by individuals regarding the association between humans and their natural environment, typically viewed as a continuum ranging from pure anthropocentric to pure biocentric and ecocentric (e.g., Dunlap, Van Liere, Mertig, and Jones 2000; Edwards, Davies, and Hussain 2009; Lück 2003). Anthropocentric environmental value is mainly concerned with continually improving human life and society, while biocentric
and ecocentric values stress the importance of respecting all life forms and natural systems and granting them equal rights as humans have (Edwards et al. 2009). However, since acquisition and consumption are considered as central values by materialists, they would not consider environmental protection as a core value. Preoccupation with material goods might thus preclude any major influence of environmental values, which make materialists to find little reason for altering their consumption behaviors to be more accommodating to the environment (Kilbourne and Pickett 2008). Therefore, those materialistic individuals might be less likely to show favorable attitudes and interest toward ecotourism. This might also leads materialists to be less willing to pay a premium for ecotourism products and services. Based on the preceding discussion, the following hypotheses are developed for the proposed model.

H1a: Materialism will negatively influence consumers’ ecotourism attitude.

H1b: Materialism will negatively influence consumers’ ecotourism interest.

H1c: Materialism will negatively influence consumers’ willingness to pay a premium for ecotourism products and services.

Relationships among ecotourism attitude, ecotourism interest, ecotourism intention, and willingness to pay a premium for ecotourism

Previous studies have suggested that individuals who have positive attitude and interest towards ecotourism are likely to be attracted to destinations where natural environment and culture are conserved and opportunities for learning and experiencing are provided (Hall 1992; Jefferson 1995). Since individuals’ attitude toward ecotourism is considered to be one of the most important antecedent of their intention to visit ecotourism destinations or to participate in ecotourism activities (Lai and Nepal 2006), understanding their intention requires researchers to
capture and categorize attitude within a complete and multidimensional system that reflects its structural diversity regarding expectations and experiences of those individuals (Gnoth 1997). A number of social psychologists such as Hollander (1967) and Lindgren (1969) suggested that attitudes can serve as sources of intentions for the way in which people interact with their environment. Katz (1960) also argued that attitudes have psychodynamic functions motivating people to behave in certain ways.

In addition, according to the theory of reasoned action (Ajzen and Fishbein 1980), attitude towards a behavior is a significant predictor of behavioral intention because attitude towards a behavior represents the extent to which a person has a favorable or unfavorable evaluation of that behavior (Ajzen and Fishbein 1980). A high correlation between attitude, behavioral intention and the subsequent behavior has been identified (Sheppard, Hartwick, and Warshaw 1988) and presented in tourism literature (Lai and Nepal 2006). Attitude in particular has been one of the most widely investigated constructs in the social sciences, and has been used to explain observed consistencies in behavior (Singh, Slotkin, and Vamosi 2007). A meta-analysis, conducted by Hines, Hungerford and Tomera (1987) with an attempt to understand which variable(s) (e.g., attitude, knowledge of issue, knowledge of action strategies, locus of control, and etc.) appear to be the most powerful predictor of consumers environmental behavior, found attitude to be the most influential predictor variable of consumers green consumption behavior intentions. Based on the preceding discussion, consumers’ ecotourism intention and interest should be outcome variables positively predicted by consumers’ favorable attitudes toward ecotourism. Therefore, the following hypotheses are proposed:

H2a: Ecotourism attitude will positively influence ecotourism intention
H2b: Ecotourism attitude will positively influence ecotourism interest

A considerable amount of debate is found in the literature regarding the definition of ecotourism as well as the criteria utilized to conceptualize this construct (Pipinos and Fokiali 2009). A school of researchers use the level of enhancing sustainability to classify ecotourism into two types, with one type as those who actively provide net benefit to the environment and the other as those who are protective of the environment but do nothing to benefit the environment (Valentine 1993). Similarly, a body of researchers make a distinction between “hard” and “soft” ecotourism (Lindberg and McKercher 1997). Hard ecotourism represent an active kind that visitors are knowledgeable, mostly travel in small groups, require the least amount of service, spend longer times traveling to specialized areas and interact with natural environment with little assistance from an intermediary. By contrast, soft eco tourists are characterized by convenience and comfort. They generally take shorter trips, use the services of outside experts for interpretation, require a great deal of service from intermediaries and travel in comfort (Singh, Slotkin, and Vamosi 2007). Researchers believe that soft eco tourists support steady-state sustainability, while hard eco tourists actively enhance sustainability through various approaches such as volunteer work, fund-raising to support environmental conservation, etc. Despite all these different conceptualizations, researchers agree that the core dimensions of ecotourism definitions are almost the same (Björk 2000). Fennell (2002) studied 85 definitions of ecotourism and found a small number of words that were encountered and recurred most often in those definitions. Those words in order of frequency were nature areas, conservation, culture, benefits to locals, education, and sustainability. Likewise, Diamantis (1998) contended that most of widely used definitions of ecotourism contain three common elements, which are nature-based environment, environmental education and sustainable management. Given that the purpose of
the current study was not to profile any particular ecotourism segment’s attitudes and behaviors, but to examine the influence of materialism value on individuals’ attitude toward ecotourism, this study defined ecotourism in a general sense using the most common characteristics mentioned in the literature rather than narrowing it down to any specific ecotourism segment. Therefore, this study portrayed eco tourists as individuals who are interested not only in culture and environmental conservation, but also in wilderness and nature experiences and learning (Juric, Cornwell, and Mather 2002). This portrayal clearly demonstrates that eco tourists intend to visit an ecotourism destination not merely because of their desire to relax and escape, but also because of their interest in experiencing the nature and conserving the environment (Blamey 1997; Juric, Cornwell, and Mather 2002). Therefore, consumers’ ecotourism interest is likely to increase their intention to participate in ecotourism activities and services. Based on the preceding discussion, the following hypothesis is proposed:

H2c: Ecotourism interest will positively influence ecotourism intention

Another important construct included in this study is consumers’ willingness to pay a premium for ecotourism. Since a number of researchers noted that companies usually need to charge a premium for environmental friendly products and services to recover additional costs incurred in the production and marketing (Manaktola and Jauhari 2007), consumers’ willingness to pay extra to engage in pro-environmental behavior becomes critical for companies’ production, pricing, and marketing strategies. However, even though individuals hold high interest and favorable attitudes toward pro-environmental behaviors, many of them may not necessarily be willing to adopt them and to pay relatively higher prices for pro-environmental activities and services (Holden and Sparrowhawk 2002). For example, consumers may be reluctant to be environmentally responsible when they still want to maintain their existing
lifestyle (McDaniel and Rylander 1993) or when they are not prepared to sacrifice their convenience (Stern 1999). Ecotourism operators have to take this issue seriously, as ecotourism industry is also an environmental-oriented industry and the price of many ecotourism products and services are comparatively higher than that of mass tourism (Holden and Sparrowhawk 2002). Although researchers still have no consensus on whether consumers are willing to pay extra for ecotourism products and services, some of prior empirical findings have revealed that consumers are willing to pay on average around five percent more for environment-friendly products (Kapelianis and Strachan 1996; Schwartz 1990; Speer 1997). There is also empirical findings suggesting that a group of consumers are willing to pay significantly more than five percent (Reinhardt 1998); maybe as much as 20 percent or more (Worldwide 1997).

Ajzen and Peterson (1988) conceptualized “willingness to pay” as one’s intention to pay a certain amount of money for engaging in a leisure activity or attaining any other public goods. Ajzen and Driver (1992) also treated willingness to pay for public goods as a behavioral intention and they used the theory of planned behavior to explore the meaning of contingent valuation measures. In line with this logic, consumers’ willingness to pay a premium for ecotourism per se, should also function similarly as a behavioral intention measure predicted by consumers’ ecotourism attitude. In addition, this variable should also be positively predicted by consumers’ ecotourism intention and interest, as only those who are interested in or motivated to engage in ecotourism activities are expected to be willing to pay more for it. The preceding discussion leads to the last three hypotheses of proposed framework:

H3a: Ecotourism attitude will positively influence consumers’ willingness to pay a premium for ecotourism
H3b: Ecotourism intention will positively influence consumers’ willingness to pay a premium for ecotourism

H3c: Ecotourism interest will positively influence consumers’ willingness to pay a premium for ecotourism

Based on the literature review, nine hypotheses were developed and used to construct a model predicting ecotourism behavior. The model organizes determinants of ecotourism behavior into five categories: materialism, ecotourism attitude, ecotourism interest, ecotourism intention, and willingness to pay a premium for ecotourism. Each of these categories/constructs provides opportunities for managers and marketers to better understand ecotourism behavior of present and future visitors.

**Figure 1**

**Proposed Framework**
Figure 1 represents the proposed model that describes the antecedents of tourists’ intention to visit ecotourism destinations and their willingness to pay a premium for ecotourism. The model proposes that tourists’ willingness to pay a premium for ecotourism is influenced directly by materialism, ecotourism attitude, interest and intention while tourists’ intention to visit an ecotourism destination is directly influenced by materialism, ecotourism attitude and interest. Model also proposes that tourists’ ecotourism interest is likely to be influenced by materialism and ecotourism attitude while ecotourism attitude is likely to be influenced by materialism.

METHODOLOGY

Sampling and Data Collection

Data for this study were collected from Italian travelers using an online self-administrated questionnaire utilizing a snowball sampling technique. Survey research is often used to assess subjects’ thoughts, opinions, and feelings, and it has several advantages such as cost-effectiveness and ability to gather data from a large sample in a relatively short period of time (Fowler 2013). Due to the financial limitations and the difficulty of reaching participants in remote areas through face-to-face structured interviews and to obtain data from a relatively large sample, this study utilized an online survey approach as an appropriate data collection method.

Snowball sampling technique is a frequently used sampling technique when the subjects are difficult to be located and accessed (Auerbach and Silverstein 2003). Through referral mechanisms, this technique provides researchers with an ever-expanding set of potential respondents in a very inexpensive and efficient way (Goldenberg, Han, Lehmann, and Hong 2009). Even though snowball sampling technique is not considered a random sampling approach,
it is considered as the best sampling approach for this study to obtain data from a large sample of consumers across different regions in Italy and to cope with the financial constraints of this project. Further, previous research (Filieri and McLeay 2013; He and Li 2010) suggests snowball sampling is appropriate when the research purpose is to test the hypothesized relationships among variables and constructs, which is the primary focus of this study.

Initial subjects were generated from the 3,000 contacts of an Italian Tourism Association. This approach is consistent with data collection method utilized in other studies that examined Italian tourists’ perceptions, attitudes and behaviors (e.g., Del Chiappa 2013). Specifically, the tourism association pools together consumers/tourists with a general interest in tourism and travelling. Individuals included in this contact list tend to be more engaged in tourism products compared to the rest of the population. Therefore, utilization of this contact list allowed us to reach individuals who are interested in tourism products. These 3,000 individuals, residing in different regions of Italy, received an e-mail inviting them to fill out an online questionnaire with a link provided in the e-mail. At the same time, they were asked to forward this online survey invitation to at least six of their friends, relatives and contacts who are older than 18 years and, possibly, residing in different regions in Italy. Using a specific tracking program, forwarding behavior of subjects in the original list was tracked. Tracking records indicated that 1,050 subjects in the original list forwarded the survey invitation. This process resulted in a total of 8,250 individuals receiving the survey invitation email. After a three-week survey period, a total of 2,609 responses were collected and 2,352 were usable for statistical analysis, thus yielding a response rate of 28.59%.

Measurements
The online survey consisted of seven sections with six measuring different constructs and the last section measuring respondents’ demographics. Because of the large number of constructs measured, the scales used for some constructs were reduced from their original form. As presented in Table 2, the materialism scale used in this study was a subset of items derived from the Richins and Dawson’s (1992) materialism scale. As mentioned in the literature review, original materialism scale is a three-factor solution with success, happiness, and centrality as the three independent dimensions of the construct. While the original scale consisted of 18 items, this study adopted eight items that had highest factor loadings for their factors in the original Richins and Dawson (1992) study. The use of such short version of the sale has been justified by Richins (2004).

Before the sections that were designed to measure respondents’ ecotourism interest, attitude, intention and willingness to pay a premium for ecotourism products, a definition of ecotourism operationalized in this study was presented to the participants as follows: *Ecotourism is defined as travelling to relatively undisturbed or uncontaminated areas with the specific objective of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural manifestations (both past and present) found in those areas. The person who practices ecotourism will eventually acquire an awareness and knowledge of the nature environment, together with its cultural aspects, that will convert him or her into somebody keenly involved in conservation issues* (Ceballos-Lascurain 1990, p. 25). For measures of ecotourism interest, this study utilized eight items of Ecotourism Interest scale developed by Juric et al. (2002) (Table 2). These eight items were measured on a seven-point Likert scale ranging from very important (7) to not at all important (1). As for the measurement of ecotourism attitude, five statements that were measured on seven-point semantic differential scale were adopted from
Lam and Hsu's (2006) study (Table 2). As presented in Table 2, the ecotourism intention was measured by four items adopted from Lam and Hsu's (2006) study. These items were measured on a seven-point Likert scale ranging from strongly agree (7) to strongly disagree (1). Willingness to pay a premium was measured with five items that were adopted from Bang, Ellinger, Hadjimarcou and Traichal's (2000) study measuring consumers’ willingness to pay more for renewable energy (Table 2). These five statements were measured on a seven-point Likert scales ranging from strongly agree (7) to strongly disagree (1).

Data analysis

The Statistical Package for Social Sciences (SPSS) was employed for descriptive and inferential analyses to provide respondents’ profiles, correlations, and Cronbach’s Alpha reliability scores. A series of Cronbach’s $\alpha$ tests were performed to test internal consistency and construct validity of constructs. Proposed hypotheses were tested utilizing a Structural Equation Modeling (SEM) approach. The M-plus 6 computer program was used (Byrne 2011) to test the proposed hypotheses. SEM enables a number of constructs to be modeled, while also taking into account the unreliability of the indicators (Nunkoo, Gursoy, and Ramkissoon 2013). In addition, SEM considers unknown reliability of the measures and ranks the measures in terms of their importance (Bacon and Bacon 1997).

RESULTS

As presented in Table 1, the sample consists of 1,510 males (65%) and 825 females (35%). The majority of respondents are between the ages of 25 to 55 years old (90%) with a high educational background (76.2% have college degree or higher). While 19% of the respondents have an annual income less than $10,000, 43% of the respondents have an annual income between $10,000 and $40,000; 11% of the respondents earn at least $40,000 or higher, and 27%
of the respondents were unwilling to report their annual income information. It should be noted that this sample may not be representative of the Italian population because of the utilization of a convenience sample derived from a snowball sampling process. In 2011, according to ISTAT (the Italian national statistical office), the overall population of Italy was 59,433,744; 51.63% of them were female and 48.37% were male, and this may suggest a gender bias for the sample of this study. However, according to Dholakia, Dholakia and Kshetri’s (2004) study, which examined the nature and sources of gender disparity in the adoption and usage of Internet across different nations, the male-female ratio in Internet use is 70:30 in Italy. This result might explain why the sample of current study yielded a similar male-female ratio from Italian online users. In addition, since the purpose of this study was theory testing by assessing the magnitude and significance of hypothesized relationships among several constructs in the proposed theoretical model rather than generalizing the findings to an overall population, a representative sample may not be needed and a convenience sample may be adequate to fulfill the purpose of this study.

Since the application of structural equation modeling approach on convenience samples has been a frequently utilized practice, (e.g., Ballantyne, Packer, and Falk 2011; Gallarza and Gil-Saura 2006; Ramkisson, Graham Smith and Weiler 2013), authors of this study believe that the data was appropriate to test the proposed relationships.

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<td>5.0</td>
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<tr>
<td>Employed</td>
<td>1050</td>
<td>44.6</td>
</tr>
<tr>
<td>Unemployed</td>
<td>319</td>
<td>13.6</td>
</tr>
<tr>
<td>Self-employed</td>
<td>326</td>
<td>13.9</td>
</tr>
<tr>
<td>Retired</td>
<td>94</td>
<td>4.0</td>
</tr>
<tr>
<td>Missing</td>
<td>34</td>
<td>1.4</td>
</tr>
</tbody>
</table>

*Measurement model*
According to Anderson and Gerbing’s (1988) two step approach, a confirmatory factor analysis (CFA) should be performed first to ensure confidence in the measurement model, which specifies the relations of observed indicators to their underlying constructs. As presented in Table 2, most of the goodness-of-fit indices for the measurement model were within an acceptable range except for the $X^2$ value. The $X^2$ value for the proposed model was found to be statistically significant ($X^2=1901.39$, $df=378$, $p=.00$). As noted by Joreskog (1993, p. 309) “since chi-square is $N$-1 times the minimum value of the fit function, the chi-square test tends to be large in large samples”. Because of the large effect of sample size on the chi-square values (and associated $p$ values), other fit indices were also selected to measure the fit of the tested models (Baumgartner and Homburg 1996). The fit between the measurement model and data was thus assessed by the following standard indices: Comparative Fit Index (CFI) = .96; Tucker-Lewis Index (TLI) = .96. Furthermore, the indicators of residuals, Standardized Root Mean Square Residual (SRMR) = .03, and Root Mean Square Error of Approximation (RMSEA) was .04. All of the above indicated that the measurement model fit the data well and the overall fit indices were appropriate.

Table 2

<table>
<thead>
<tr>
<th>Model</th>
<th>$N$</th>
<th>$X^2$</th>
<th>$df$</th>
<th>$p$</th>
<th>CFI</th>
<th>TLI</th>
<th>SRMR</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement model</td>
<td>2352</td>
<td>1901.4</td>
<td>378</td>
<td>&lt; .01</td>
<td>.96</td>
<td>.96</td>
<td>.03</td>
<td>.04</td>
</tr>
<tr>
<td>Structural model</td>
<td>2352</td>
<td>2148.2</td>
<td>388</td>
<td>&lt; .01</td>
<td>.96</td>
<td>.95</td>
<td>.05</td>
<td>.04</td>
</tr>
</tbody>
</table>
Two types of validity measures, convergent and discriminant validity, were examined. Convergent validity was tested by examining t values of each item’s factor loading on its underlying construct (Anderson and Gerbing 1988). All t-values associated with each completely standardized factor loading for each indicator were found to be higher than 1.96, suggesting significance at .05 significance level. This indicated that convergent validity of all the indicators was established. Discriminant validity was tested by comparing intercorrelations of factors with the square root of the average variance (i.e. variance extracted estimate) for each factor (Hatcher 1994). Since the estimate for variance extracted for each factor was at least .50 and exceeded any of the intercorrelations of the factors, discriminant validity of all the constructs was established (Fornell and Larcker 1981).

Table 3
Standardized Path Coefficients of Confirmatory Factor Analysis

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Reliability Coefficient</th>
<th>Path Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materialism</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>1. I admire people who own expensive homes, cars, and clothes</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>2. Some of the most important achievements in life include acquiring possessions</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>3. I usually buy only the things I need</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>4. I try to keep my life simple, as far as possessions are concerned (R)</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>5. The things I own aren't really that important to me (R)</td>
<td>.40</td>
<td></td>
</tr>
<tr>
<td>6. I have all the things I really need to enjoy life (R)</td>
<td>.60</td>
<td></td>
</tr>
<tr>
<td>7. My life would be better if I owned certain things I don't have</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>8. I'd be happier if I could afford to buy more things</td>
<td>.75</td>
<td></td>
</tr>
</tbody>
</table>
Ecotourism attitude

All things considered, I think visiting an ecotourism destination would be...

9. Enjoyable Unenjoyable .74
10. Positive Negative .75
11. Fun Boring .86
12. Pleasant Unpleasant .92
13. Favorable Unfavorable .76

Ecotourism interest

To what extent do you consider the following attributes are important when you go on holiday?

14. Wilderness and undisturbed nature .68
15. Tropic forests and indigenous bush .69
16. National parks .81
17. Lakes and streams .77
18. Oceanside .68
19. World heritage status areas .68
20. Learning about nature .73
21. Photographing landscape and wildlife .60

Ecotourism intention

22. There is a high likelihood that I will visit an ecotourism destination within a foreseeable future .82
23. I want to visit an ecotourism destination .76
24. I intend to visit an ecotourism destination within a foreseeable future .95
25. I will visit an ecotourism destination within the next 12 months .70

Willingness to pay a premium

26. How willing would you be to go on a more expensive holiday in order to reduce pollution? .80
27. How willing would you be to financially support ecotourism projects? .71
28. How willing would you be to pay more for your holiday if you knew the added cost .89
paid for a better environment?

29. How willing would you be to pay more for your holiday today in exchange for possibly better tourism experiences in the future? .84

30. How willing would you be to pay more for ecotourism as opposed to ‘regular’ tourism? .88

Note: All paths are significant (p < .01)

Structural model and hypothesis testing

With measurement model demonstrating good fit, a structural model depicting each of nine hypotheses was then tested. Again, although the structural model had a significant $X^2$ value ($X^2 = 2148.2, df = 388, p = .00$), the other model fit indices were within an acceptable range:

Comparative Fit Index (CFI) = .96; Tucker-Lewis Index (TLI) = .95; Standardized Root Mean Square Residual (SRMR) = .05, and Root Mean Square Error of Approximation (RMSEA) was .04 (Table 2). All these suggested that the structural model fit the data well.

The first three hypotheses (H1a, H1b and H1c) stated that the materialism will negatively influence ecotourism attitude, ecotourism interest and willingness to pay a premium for ecotourism. These three hypotheses were supported as the standardized path coefficients for H1a, H1b and H1c were -.34, -.15 and -.17 respectively, and parameter estimates for all three were significant at .01 significance level (Table 4). H2a and H2b proposed that ecotourism attitude will positively influence both ecotourism intention and ecotourism interest. The path coefficients for these two hypotheses were .10 and .36 respectively and were both statistically significant at .01 significance level. This findings provided support for H2a and H2b. H2c proposed a positive relationship between ecotourism interest and ecotourism intention, and this hypothesis was not supported as path coefficient was .05 and was not statistically significant ($p = .06$).
and H3c proposed that ecotourism attitude, ecotourism intention, and ecotourism interest all will positively influence consumers’ willingness to pay a premium for ecotourism. The path coefficients for H3a and H3b were .27 and .37 respectively and were both statistically significant at .01 significance level, whereas the path coefficient for H3c was .03 and was not statistically significant \( (p = .17) \). Therefore, H3a and H3b were supported, while H3c was not supported.

Table 4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardized Estimate</th>
<th>t-Value</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materialism ( \rightarrow ) Ecotourism attitude</td>
<td>-.34</td>
<td>-9.26</td>
<td>Supported</td>
</tr>
<tr>
<td>Materialism ( \rightarrow ) Ecotourism interest</td>
<td>-.15</td>
<td>-4.89</td>
<td>Supported</td>
</tr>
<tr>
<td>Materialism ( \rightarrow ) Willingness to pay a premium</td>
<td>-.17</td>
<td>-5.37</td>
<td>Supported</td>
</tr>
<tr>
<td>Ecotourism attitude ( \rightarrow ) Ecotourism intention</td>
<td>.10</td>
<td>4.16</td>
<td>Supported</td>
</tr>
<tr>
<td>Ecotourism attitude ( \rightarrow ) Ecotourism interest</td>
<td>.36</td>
<td>16.41</td>
<td>Supported</td>
</tr>
<tr>
<td>Path</td>
<td>Beta</td>
<td>Z-Value</td>
<td>Support</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Ecotourism interest → Ecotourism intention</td>
<td>0.05*</td>
<td>1.86</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Ecotourism attitude → Willingness to pay a premium</td>
<td>0.27</td>
<td>12.69</td>
<td>Supported</td>
</tr>
<tr>
<td>Ecotourism intention → Willingness to pay a premium</td>
<td>0.37</td>
<td>17.53</td>
<td>Supported</td>
</tr>
<tr>
<td>Ecotourism interest → Willingness to pay a premium</td>
<td>0.03*</td>
<td>1.39</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

* Denote paths are not significant, $p > .05$

**DISCUSSIONS AND CONCLUSION**

As expected, the findings showed that materialism value negatively influences ecotourism attitude, ecotourism interest and willingness to pay a premium for eco-tourism products. Such result, to some extent, reflects previous researchers’ critiques of materialism as one of the root causes of environmental decline (Porritt 1984). In Kibourne and Pickett’s (2008) study, which investigated how materialism affects environmental beliefs, concern, and environmentally responsible behavior, they contended that individuals’ cognitive dissonance (Festinger 1962) could occur when their desired consumption behavior is considered as negative
to the environment. Therefore, cognitive dissonance in materialists is likely to increase once they realize that the increase of consumption could result in negative environmental consequences. The resolution for such dissonance relies on the circumstances relating to the relative attractiveness of the alternatives (Festinger and Carlsmith 1959). Given that materialism has been long rooted in Western industrial society while environmentalism is relatively new and less integrated into cognitive structures, the conflict between the two values would be resolved in favor of materialism. This suggests that an individual is likely to discard his or her environmental concerns conflicting with his or her materialistic value. Since environmental protection is one of the major objectives of ecotourism development, those with high materialistic value would thus find ecotourism as an unattractive type of leisure activity and, therefore, they would not want to pay a premium for ecotourism products. All these could explain why one’s materialism would negatively influence his or her ecotourism attitude, interest, and willingness to pay more for ecotourism as reported in this study.

The results also revealed that consumers’ ecotourism attitude would positively influence ecotourism intention, ecotourism interest, and willingness to pay a premium for ecotourism. Such findings are consistent with the rationale of the Theory of Reasoned Action (Ajzen and Fishbein 1980). The model of TRA demonstrates that behaviors are determined by a person’s intention to perform a specific behavior, and that behavioral intention is derived from two factors: (1) attitude toward the behavior, and (2) subjective norms. In the present study, ecotourism intention, ecotourism interest, and willingness to pay a premium for ecotourism are three distinct variables that function similarly in nature as individuals’ behavioral intention, which has been justified in the literature review. It is thus reasonable to find that these three constructs are positively influenced by consumers’ ecotourism attitude. On the other hand, the
result also indicates that consumers’ ecotourism intention will positively predict their willingness to pay more for ecotourism. Researchers (Howarth and Norgaard 1995) have noted that the reason why consumers are interested in the environment is mainly because they are concerned about their own health or their children’s future. According to Zaichkowsky (1985), when an issue is related to personal importance or values such as health or children’s future, it would enhance involvement. In addition, Bang et al. (2000) suggested that consumers who are concerned about the environment would prefer environmentally friendly products and would reward environmentally conscious businesses whom they perceive as socially responsible. In line with the above argument, consumers’ intention toward ecotourism, which aims to enhance nature-based environment, environmental education and sustainable management, should logically lead to their willingness to pay more for it as reported in this study.

Nevertheless, it is surprising that the present study did not find consumers ecotourism interest positively predict their ecotourism intention and willingness to pay a premium for ecotourism. Possible explanations for such findings might be the nature of Ecotourism Interest (EI) Scale itself. According to Juric et al. (2002), a notable limitation of EI scale is that it was tested only for selected activities available in New Zealand, so that whether the scale can be applied to different types of tourism activities and destinations is unknown. As those eight selected activities in New Zealand could not define all ecotourism activities across different destinations, the Italian public, who were the major sample of this study, might perceive some other activities in addition to those ones as their typical ecotourism activities. In addition, even EI scale was found to provide a useful explanation of tourist participation in ecotourism activities, Juric et al. (2002) also noted that EI items should be supplemented by items measuring demographics and trip characteristics such as age, gender, party composition, and organization of
travel, since they were found to influence respondents’ choice of some activities in EI scale. Therefore, the validity of EI scale in reflecting Italian participants’ ecotourism interest might be questionable, and this possibly inaccurate reflection might be the critical cause of insignificant predicting power of ecotourism interest on two other ecotourism-related constructs (i.e., ecotourism intention and willingness to pay a premium).

In conclusion, the present study bridges the gap between materialism and ecotourism literature by empirically illustrating individuals’ materialistic value significantly reduces their attitude and interest toward ecotourism and their willingness to pay a premium for ecotourism. In addition, building upon the Theory of Reasoned Action literature, this study enriches the body of tourism literature by identifying significantly positive effects of consumers’ favorable attitude of ecotourism on their ecotourism interest, ecotourism intention, and willingness to pay more for ecotourism.

MANAGERIAL IMPLICATIONS

The findings of this study provide some practical implications for ecotourism operators and marketers. Findings clearly suggested that an individual’s attitude is likely to influence his/her intention to purchase ecotourism products and his/her willingness to pay a premium for them. This suggests that development and implementation of communication strategies to create or increase consumers’ positive attitudes toward ecotourism is vital for the success and survival of ecotourism operations. To this end, ecotourism operators, tour operators, travel agents and guides can cooperatively develop communication strategies and materials that emphasize the importance and benefits of ecotourism for preservation of environment and culture while generating positive benefits for local residents and tourists. For example, ecotourism service providers could cooperate with tourism community leaders to develop programs involving local
residents to provide learning opportunities for them about the nature, environmental and cultural-heritage preservation efforts and initiatives, and how ecotourism can further those preservation efforts and initiatives. Studies suggest that the majority of eco tourist tend to travel with their friends or as a couple (Weaver and Lawton 2007). In order to increase participation in ecotourism and to target different segments, operators can provide facilities and activities that are family oriented around nature and wildlife. Operators can also offer special discounts to local residents to motivate them to try ecotourism products located within their communities. This may improve residents’ positive perceptions and support for ecotourism operations within their community. In addition, the promotion and recognition of potential economic benefits from ecotourism to an area is equally important. Tourism decision makers should communicate the importance of ecotourism in job creation and recreational opportunities with local residents through various media such as Internet, TV, newspaper, magazine, printed material, and etc. Ecotourism planners can also hold a series of special ecotourism events and festivals to achieve greater visibility and promotion. Increases in consumers’ knowledge and awareness of ecotourism’s importance and benefits are likely to result in favorable attitude toward ecotourism. This would, in turn, help increase consumers ecotourism interest, intention, as well as their willingness to pay more for ecotourism products and services, as reported in this study.

Nevertheless, it should be noted that the success of the above efforts will vary according to the level of materialistic value held by individuals targeted in those efforts. Since individuals’ materialistic value is likely to negatively influence their attitude, interest, and willingness to pay a premium for ecotourism products, ecotourism operators should spend a greater amount of time and effort on communication and education strategies for those who are high in materialism. This, of course, requires a long-term commitment since materialism has been long embedded in
Western industrial society (Kibourne and Pickett 2008). Perhaps an effective and efficient approach is that local and central authorities can develop consumer and production programs and policies aimed at changing consumers’ behaviors about environmental and socio-cultural issues. Such programs and policies should emphasize the importance of environmental protection as well as advocate making small lifestyle changes to help further conservation of natural and socio-cultural resources while improving individuals life’s happiness and quality of life overall.

**LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

As with any other studies, the current study has several limitations. Data for this study was collected only from one nation (i.e., Italy) utilizing an online data collection process, so whether the proposed model can be applied to different samples from Italy or other countries is questionable. Furthermore, since the data was collected utilizing an online survey, individuals without internet access may have been excluded from the sample. In addition, this study utilized a convenience sample derived from a snowball sampling approach. Findings indicated that the sample included much more male respondents than female respondents, which suggests that the sample may not be representative. When interpreting the results, readers should consider the possibility of gender bias in responses. Therefore, it is strongly recommended that future studies utilize a random sampling approach for generalizability purposes. Future studies should preferably be conducted on a randomly acquired cross-national sample to address this generalizability concern.

Common method bias is also a limitation that should be noted. Data utilized were self-reported and all independent and dependent variables were obtained from the same raters (Podsakoff, MacKenzie, Lee, and Podsakoff 2003). This study did not separate the source of independent and dependent variables due to great difficulties in linking the data together. It is
strongly recommended that future studies should set stricter research procedures to minimize this issue, preferably obtaining measures of independent and dependent variables from different raters.

Cross sectional design is another limitation of this study, which could limit the ability to observe the changing patterns of subjects across time. It might also cause misidentification of the causal relationship between independent and dependent variables. Future research should address such issues by using longitudinal data analyses approaches to detect and monitor variations and trends among subjects. Moreover, as mentioned in the discussion section, the EI scale used in this study may not be applicable to the population of this study since the scale was developed for individuals who are located on another continent. The nature of EI scale might be the cause of insignificant findings. Future studies could address such issue by developing another measure of ecotourism interest that can be practically applied to a wider range of ecotourism experiences and eco tourist profiles.

The current study also provides a number of research directions for future research. Since this study utilized data from only one Western nation, Italy, it may be necessary to replicate this study in other Western nations to validate the results reported here. It may also be necessary to conduct cross-cultural studies to examine the influences of materialism on individuals’ attitude, interest and willingness to pay more for ecotourism products from Eastern and Western cultures. Given research (Clark 2009) has identified Eastern and Western societies are ontologically differ in values they hold (i.e., Eastern society values Spiritualism while Western society values Materialism), replication of this study in Eastern cultures by integrating Eastern values into the model might generate critical findings and implications for Eastern ecotourism operators and marketers.
Future research can also identify factors that might moderate the relationship between materialism and individuals’ attitude, interest, and willingness to pay more for ecotourism products. For example, generational difference (i.e., Boomers vs. Generation X vs. Millennials) might be a possible moderator of this kind. Researchers have argued that each generation has a unique cultural perspective. The level of materialism value among different generations might also be different (e.g., Kilbourne and Pickett 2008). Therefore, including generational difference or other variables (e.g., demographic variables) as possible moderators in the proposed framework of this study might provide more practical implications for ecotourism practitioners to develop more customized marketing and communications strategies for different market segments.

Moreover, in addition to materialism value, future research should also try to identify other values that could influence people’s attitude and interest toward ecotourism; utilitarian and hedonic values might be two possible values of this kind. Since utilitarian and hedonic values have been widely recognized as two important determinants of consumers’ consumption choices (Dhar and Wertenbroch 2000), it would be interesting to examine whether these two values also have any significant influences on how people think of ecotourism products.
REFERENCES


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