

Testing the effects of congruity, travel constraints, and self-efficacy on travel intentions: An alternative decision-making model

Kam Hung^{a,*}, James F. Petrick^{b,1}

^a School of Hotel and Tourism Management, Hong Kong Polytechnic University, 17 Science Museum Road, TST East, Kowloon, Hong Kong

^b Department of Recreation, Park and Tourism Sciences, Texas A&M University, TAMU 2261, College Station, TX 77843-2261, United States

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ABSTRACT

Travel decision making has been extensively studied. Various models and theories have been proposed to explain tourist behavior. Taking a new approach, this study applied the Motivation–Opportunity–Ability (MOA) model to explain travel intentions. The MOA model suggests that motivation, opportunity, and ability are major factors influencing travel intentions. This study explored the role of self-congruity, functional congruity, perceived travel constraints, constraint negotiation, and self-efficacy on travel intentions.

The proposed model and hypotheses were tested in the context of cruise tourism. An online panel survey was conducted with cruisers. Structural Equation Modeling (SEM) was used to test both the proposed model and hypothesized relationships among the constructs. All hypotheses except one were supported by the data. The proposed model also had an acceptable fit to the data.

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1. Introduction

Decision-making studies are multi-disciplinary in nature and have evolved from a wide range of fields including psychology (e.g., Harmon-Jones, 2000; Oyserman, Fryberg, & Yoder, 2007; Pablo, Petty, & Barden, 2007), sociology (e.g., Howard, 2000; Lawler, Thye, & Yoon, 2000; Pierce, Cameron, Bando, & So, 2003), marketing (e.g., Cotte & Wood, 2004; Mandel, 2003; Simonson, Carmon, Dhar, Drolet, & Nowlis, 2001), and communication (e.g., Homer, 2006; Katz, 1973; Till & Baack, 2005). Although different theories or conceptual models (e.g., Theory of Planned Behavior by Ajzen, 1991; Goal Hierarchy of Motivation by Bettman, 1979; Elaboration Likelihood Model of Persuasion by Petty & Cacioppo, 1980; Brand Personality by Aaker, 1997) have been proposed for explaining consumers' decisions, no one unifying theory has been agreed upon by scholars to fully explain decision making (Sirakaya & Woodside, 2005). Simonson et al. (2001, p. 251) suggested that this might be because “consumer behavior is too complex to be meaningfully captured in a single model.” Alternative approaches may enhance our understanding of decision making from different ways. The current study proposes an

alternative model, situated in the Motivation–Opportunity–Ability (MOA) framework, for explaining travel intentions.

An observation derived from past decision-making studies is that scholars usually consider decision making as a rational process which involves multiple stages (Sirakaya & Woodside, 2005) in which consumers logically derive their final decision. For instance, Crompton (1992) and Botha, Crompton, and Kim (1999) proposed a destination choice model in which people narrowed their choices from an awareness set, initial consideration set, and late consideration set to derive their final destination choice. Based on Assael's (1984) work, Vogt and Fesenmaier (1998) introduced an information search model in which the information search process is comprised of five stages: input variables, information acquisition, information process, brand evaluation, and purchase. Sirakaya and Woodside (2005) summarized previous decision-making studies and suggested that people usually go through the following steps when making a travel decision: 1) recognizing the need for making a decision; 2) identifying goals; 3) formulating choice sets; 4) collecting information on each choice; 5) making a choice among the alternatives; 6) purchasing and/or consuming products/services; and 7) post-purchase evaluation.

Although these models present a logical hierarchical process of decision making, some scholars (e.g., Crompton & Ankomah, 1993; Oppermann, 1998; Petrick, Li, & Park, 2007) have suggested that not everyone follows all the steps scripted above. People are more likely to skip some stages of decision making when they are brand loyal

* Corresponding author. Tel.: +852 3400 2258.

E-mail addresses: hmkam@polyu.edu.hk (K. Hung), jpetrick@tamu.edu (J.F. Petrick).

¹ Tel.: +1 979 845 8806.

(Petrick et al., 2007), have previous experience (Oppermann, 1998), are familiar with the products/services (Prentice & Andersen, 2000), have social influences (Petrick et al., 2007), are more involved in their decision-making process (Crompton & Ankomah, 1993), and/or if their decisions are routinized (Crompton & Ankomah, 1993). Petrick et al. (2007) studied decision making of cruisers and found that Crompton's (1992) destination choice set model, which is a multi-stage decision-making model, did not explain the phenomenon. This implies that the traditional multi-stage approach may not be applicable to explain tourists' decision makings due to its sensitivity to the factors mentioned above.

Using the Motivation–Opportunity–Ability (MOA) model (MacInnis & Jaworski, 1989) as a guiding framework, the current study will evaluate travel motivation, opportunity, and ability as well as their influences on travel intentions. This model differs from previous decision-making models in two ways. First, the model does not follow the traditional multi-stage approach of other decision-making models. Rather, the focus is more on identifying the key factors affecting behavioral intentions and examining the interactions among these factors. Second, the model incorporates both rational and hedonic components of decision making, to hopefully present a more holistic picture of decision making. It is hoped that the proposed model will offer an alternative understanding of travel intentions and the decisions that affect them.

2. Literature review

The MOA model was first proposed by MacInnis and Jaworski (1989) within the context of information processing. The model suggests that motivation, opportunity, and ability (MOA), are antecedents of consumer behavior(s). Based on MacInnis and Jaworski's (1989) work, MacInnis, Moorman, and Jaworski (1991) further explored the role of MOA in brand information processing for advertising and found it plays a mediating role in the relationship between executional cues and communication outcomes. They suggested that the executional cues of an advertisement affect the communication effectiveness of an ad through their influences on consumers' motivation, opportunity, and ability to process the information.

The MOA approach has been adopted by several scholars on a wide range of topics including community participation in tourism development (Hung, Turk & Ingram, 2011), brand purchase (Batra & Ray, 1986), art participation (Wiggins, 2004), and crime (Davidson & Gentry, 2001; Kenry, 2003; McGrew, 2005). A commonality found among these applications of the MOA model is that all participants in these studies were engaged in information processing or a decision-making process and their decisions are mainly influenced by three factors: their motivation, opportunity and ability.

Similarly, travel propensity can be considered as the outcomes of information processing and to be subject to the influence of these three factors. A large body of research has been conducted in tourism contexts to investigate how people process information and how they make decisions (e.g., Crompton, 1992; Fodness & Murray, 1997; Gursoy & McCleary, 2004; Vogt & Fesenmaier, 1998). This research has focused on identifying factors influencing travelers' decision-making processes and the outlying mechanisms leading to a travel decision. Applying the MOA model in a context of tourism, this study is expected to structure a theoretical framework with inclusion of both rational and hedonic components of decision making. The following paragraphs investigate motivation, ability, and opportunity in more detail.

2.1. Motivation

Motivation is an important factor in a decision-making process as it affects both the direction and intensity of behavior (Bettman,

1979). There is substantial interest in investigating motives underlying human behavior in various fields of study. Motivation scholars have used different approaches to explain human motivations such as drive reduction theory (Hull, 1943, 1952), hierarchy of needs (Maslow, 1943, 1954), expectancy-value theories (Lewin, 1938), and goal directed behavior (Bettman, 1979). These approaches have provided differing insights related to the understanding of human behaviors.

Since satisfying tourists is important to sustaining travel businesses, tourism scholars have actively engaged in travel motivation studies to understand tourists better. In his early work, Dann (1977) suggested that people travel for two basic reasons: 1) to escape from boredom of usual residence, and 2) to gain status recognition from others. These two basic travel motivations coincide with Iso-Ahola's (1982) notions of escaping usual environments and seeking intrinsic rewards, which act as two fundamental forces leading to a travel decision. Crompton (1979) identified nine socio-psychological motivations leading to a travel decision. These motivations are also referred to as "push" travel factors that have been argued to be necessary in order to result in a decision to travel (Crompton, 1979; Dann, 1981).

While "push" factors refers to the inner needs that induce people to travel, "pull" factors have to do with the attractiveness of a destination that entices people to choose where to go for a vacation (Crompton, 1979; Dann, 1981). Destination image represents the "pull" aspect of motivation. It is the image formulated based on tourists' personal interpretations of a destination (Baloglu & McCleary, 1999; LaPage & Cormier, 1977; MacKay & Fesenmaier, 1997). Although different classifications of destination image have emerged from past studies (e.g., Fakeye & Crompton, 1991; Gartner, 1993; Gunn, 1972), cognitive and affective image are probably the most commonly recognized dimensions of image in the tourism literature (e.g., Baloglu & Love, 2005; Kerstetter, Yen, & Yarnal, 2005; Park, 2006). Cognitive image is formed based on beliefs or knowledge of a destination and affective image refers to subjective feelings or emotional responses of individuals toward a destination (Gartner, 1993).

Past research (e.g., Kim & Chalip, 2004; Kim, Lee, & Klenosky, 2003; Zhang & Lam, 1999) has often separated the discussions of "push" and "pull" motivations, even though they have been studied simultaneously. This practice has led to an unclear understanding of the interaction between "push" and "pull" motivations as well as how the interaction can influence travel intentions. The integration of these two approaches is likely to enhance the understanding of the role of destinations in fulfilling visitors' fundamental needs. The current study applies self-congruity theory (Sirgy, 1986) to interpret the relationship between "push" and "pull" factors and to bridge the gap between these two approaches.

2.1.1. Self-congruity theory

Self-congruity is defined in marketing research as "the match between consumers' self-concept and the user's image of a given product, brand, store, etc" (Kressmann et al., 2006, p. 955). The congruence between the perceived image of a product and self-image can lead to preference of the product and thus, result in purchasing behavior. In other words, people tend to behave congruent to their self-images (Mannetti, Pierro, & Livi, 2004). In tourism contexts, self-congruity refers to the match between tourists' self-image and perceived destination image.

Self-congruity research encompasses different disciplines. For instance, Sirgy (1986) situated self-congruity as an integrated theory of human behavior which contributes to research in different fields including personality, cognition, self-concept, and cybernetics. Rosenberg (1989) also indicated that there was a long tradition of studying self-concept in psychology, sociology, and

psychoanalysis, even though there has been a few obstacles restricting self-concept research. For instance, behaviorism prevailed during the first half of the twentieth century in psychology. This perspective put an emphasis on objectivity which requires observable facts, and rejects subjectivity which implies speculations on human's internal thoughts (Matlin, 2005; Pear, 2001; Sternberg, 1999).

According to Rosenberg (1989), the shift from external to internal reactions was initiated by Donald Snygg (1941) who proposed a paradigm of phenomenology which suggests that people behave according to their own interpretations or feelings toward situations rather than responding to the actual facts. This shift of focus has placed human thoughts in the center of the investigation of human behavior.

Different motives have been proposed to explain why people engage in behaviors including self-congruity activity. For instances, Hayakawa (1963) suggested that the basic purpose of human activity is to protect, maintain, and enhance one's symbolic self. This implies that self-concept is the focal point of most human behaviors. People tend to engage in behaviors which can reflect or signify their self-images.

Therefore, self-congruity is a motivation of human behavior. While early studies (e.g., Birdwell, 1968; Dolich, 1969; Grubb & Hupp, 1968) tended to test the self-congruity hypothesis, later studies (e.g., Malhotra, 1981; Mannetti et al., 2004) tended to offer more sophisticated measurements of self-congruity and examined the operations of self-congruity under the influence of different factors such as conspicuousness (Belch & Landon, 1977; Ross, 1971), ownership (Barone, Shimp, & Spratt, 1999), and self-consciousness (Aaker, 1999; Elliott, 1986). The consensus generated from these studies suggests that self-congruity is a useful approach to explaining behavioral intentions (Mannetti et al., 2004), product evaluation (Barone et al., 1999), consumer satisfaction (Magin, Algesheimer, Huber, & Herrmann, 2003), brand loyalty (Kressmann et al., 2006), and brand preference (Aaker, 1999).

While self-congruity reflects hedonic dimension of congruity, functional congruity represents the rational component of congruity. It refers to the match between tourists' ideal expectations of utilitarian destination features and their perceptions of how the destination is perceived along the same features (modified from Kressmann et al.'s (2006) definition of consumer functional congruity). This utilitarian dimension of congruity suggests that consumers make decisions based on their rational evaluation of benefits and costs of each transaction, and a purchasing intention occurs when benefits outweigh costs. In other words, maintaining a sense of congruity is a motivation of human behavior. When investigating the impact of such motives in consumer behavior, it has been argued that both self- and functional congruity should be considered (Sirgy, Grzeskowiak, & Su, 2005). Self-congruity refers to the match between consumer's self-image and affective product image. Functional image refers to the match between ideal functional image of a product and perceived product image by a consumer.

The studies of tourism and congruity suggested that self-congruity and/or functional congruity have positive influence on customer satisfaction (Chon, 1992), pre-trip visitation interest and purchase proclivity (Goh & Litvin, 2000; Litvin & Goh, 2002), and travel intentions (Kastenholz, 2004). In addition, past studies (Sirgy, Johar, Samli, & Claiborne, 1991; Sirgy & Su, 2000) have further suggested that self-congruity has a positive impact on functional congruity, which means that the congruence between product image and self-image can positively distort customers' evaluations of a product's functional congruity. Therefore, it is hypothesized that:

H1: The congruity between self-images and affective tourism product images (i.e., self-congruity) positively influences people's

travel intentions. The more congruent images are, the more likely people would intend to travel.

H2: The congruity between ideal functional images of tourism product attributes and cognitive images along the same tourism product attributes (i.e., functional congruity) positively influences people's travel intentions. The more congruent images are, the more likely people would intend to travel.

H3: Functional congruity is positively affected by self-congruity. People who have higher congruence between their self-images and affective tourism product images are more likely to have higher functional congruity toward the tourism product.

2.2. Opportunity

Opportunity is the second antecedent of the MOA model and is the circumstances that allow for or facilitate people to perform a behavior. In this study, travel constraints are used as indicators for opportunity to travel. Travel constraints can be defined as those factors that inhibit continued traveling, cause inability to travel, result in the inability to maintain or increase frequency of travel, and/or lead to negative impacts on the quality of the travel experience (modified from Nadirova and Jackson's (2000) definition of leisure constraints). The presence of travel constraints may lead to diminishing opportunities for gaining desirable travel experiences.

2.2.1. Travel constraints

The concept of travel constraints is originated from the leisure constraints literature. Although discourses of leisure constraints have been in place since the early 1960s (Buchanan & Allen, 1985), theoretical frameworks were not constructed to explain leisure constraints until the 1980s. Crawford, Jackson, and Godbey (1991) categorized leisure constraints into three dimensions: intrapersonal, interpersonal, and structural constraints. Intrapersonal constraints are the inhibitors that associated with the psychological conditions of individuals such as their personal interest. Interpersonal constraints refer to interaction between a potential leisure participant and others. Structural constraints are external factors restraining ones from their behavioral intentions such as inconvenient transportation. This classification of constraints represents systematic analysis of leisure constraints and has been adopted as a common analytic framework by a large number of studies in both leisure and tourism (e.g., Hubbard & Mannell, 2001; Kerstetter et al., 2005; Loucks-Atkinson & Mannell, 2007; Nyaupane, Morais, & Graefe, 2004; Park, 2006).

These three dimensions of leisure constraints was subsequently proposed to be linked together in Crawford et al.'s (1991) hierarchical model, which suggests that different types of constraints influence people's decision making in a sequential order; first at the intrapersonal level; second at the interpersonal level; and last at a structural level. In addition, intrapersonal constraints influence leisure preferences while structural constraints influence leisure participation after the preferences have been made.

Refinements to the hierarchical model of leisure constraints have been made with the emergence of the constraint negotiation concept proposed by Crawford et al. (1991). This concept suggests that constraints are negotiable rather than insurmountable, and nonparticipation is no longer interpreted as the sole outcome of constraints, rather, it is only one of many possible outcomes (Scott, 1991). Past studies have provided empirical evidence for this hypothesis. For instance, Kay and Jackson (1991) as well as Shaw, Bonen, and McCabe (1991) found that respondents succeeded in maintaining their desired level of participation despite the presence of constraints. These studies suggested that while constraints have an adverse impact on leisure participations, the activation of

constraint negotiation may mediate this effect. Therefore, it is hypothesized that:

H4: Travel constraints negatively influence travel intentions. The higher the level of travel constraints a person experiences, the less likely the person would intend to travel.

H5: The presence of travel constraints initiates adoption of constraint negotiation strategies. The more constrained a person is, the more likely the person will use negotiation strategies.

H6: Constraint negotiation positively influences travel intentions. The more constraint negotiation strategies a person adopts, the more likely the person would intend to travel.

2.3. Ability

Ability is the last antecedent of the MOA model. A person must possess the appropriate abilities in the relevant domain of behavior, in order to be able to perform a given behavior. The ability to perform a behavior can be measured by self-efficacy, which refers to the perceived capability of one's self to execute a behavior (Bandura, 1977). There is a large body of research (e.g., Giacobbi, Hausenblas, & Penfield, 2005; Hill, Smith, & Mann, 1987; Hoff & Ellis, 1992) which has investigated various aspects of self-efficacy, and suggests that self-efficacy has an important role in explaining people's behavior. The application of self-efficacy in different disciplines indicates that self-efficacy is a general trait that people possess when they execute certain behaviors.

2.3.1. Self-efficacy theory

White (1959) proposed that effectance, which is the feeling of efficacy or the ability to deal with the environment, is a motive to human's behavior. Bandura (1977) further elaborated the idea of effectance motivation in his self-efficacy theory. He defined self-efficacy as the "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). In other words, self-efficacy refers to a person's self-confidence related to their ability to perform an action which could lead to desired outcomes. The actual skills that a person possesses may have nothing to do with the beliefs they have related to their capability to execute the behavior. Rather, self-efficacy is built on the self-evaluation or judgment of one's ability to implement the action (Bandura, 1986).

Since the development of self-efficacy theory, the concept has received a vast amount of attention, and has been adopted in a wide range of topics. Most research has examined self-efficacy in specific rather than general situations, and has suggested that measurement of self-efficacy is only meaningful when it refers to a task specific situation (Abusabha & Actterberg, 1997; Bandura, 1980; Gist & Mitchell, 1992). When referring to self-efficacy for a particular task, researchers have named self-efficacy according to their study context with terms such as physical activity self-efficacy (Sylvia-Bobiak & Caldwell, 2006), exercise self-efficacy (Giacobbi et al., 2005; McAuley, 1992), leisure self-efficacy (Hoff & Ellis, 1992), computer self-efficacy (Hill et al., 1987), physical self-efficacy (Ryckman, Robbins, Thornton, & Cantrell, 1982), nutrition-teaching self-efficacy (Brenowitz & Tuttle, 2003), heart healthy eating self-efficacy (Gaugban, 2003), and breast feeding self-efficacy (Wells, Thompson, & Kloebler-Tarver, 2006).

There has been a lack of attention paid to the interaction between self-efficacy and constraints. Although the role of self-efficacy in constraint negotiation has long been suggested (Jackson, Crawford, & Godbey, 1993), it was not empirically tested until recently (Loucks-Atkinson & Mannell, 2007). The inclusion of self-efficacy corresponds with the role of perceived self-ability in confronting constraints, which was one of the essential components of Jackson

et al.'s (1993) propositions. Their fifth proposition states that "anticipation consists not simply of the anticipation of the presence or intensity of a constraint but also of anticipation of the ability to negotiate it" (p. 8). This infers that the perceived capacity to negotiate constraints can determine the effects that constraints have on travel intentions.

"Negotiation efficacy" has been used when applying self-efficacy in the context of constraint negotiation (Loucks-Atkinson & Mannell, 2007). It refers to the confidence in one's ability to use negotiation resources effectively (Hubbard & Mannell, 2001). Although other constraint researchers have not included self-efficacy in their investigations, some have suspected that it could be an important factor influencing the success of negotiation efforts (e.g., Henderson, Bedini, Hecht, & Schuler, 1995; Hubbard & Mannell, 2001). Therefore, the specific hypothesis to be tested is:

H7: Self-efficacy moderates the relationship between travel constraints and constraint negotiation.

To summarize, based on the MOA model and past literature, it is hypothesized in the current study that self-congruity, functional congruity, travel constraints, constraint negotiation, and self-efficacy are the key factors influencing travel intentions. The final proposed conceptual framework is shown in Fig. 1.

The proposed model was tested in the context of cruise travel. Having a reputation as a "floating resort", cruise ships can be thought of as a tourism product which amalgamates accommodation, entertainment, food and beverage, and transportation in one context. Various aspects of cruise vacations have been investigated in past studies including: the economic benefits of the cruise industry (Dwyer & Forsyth, 1998; Henthorne, 2000; Vina & Ford, 2001), loyalty (Li & Petrick, 2008a, 2008b; Petrick, 2004a, 2005a; Petrick & Sirakaya, 2004), price sensitivity (Petrick, 2005b), the role of Mood (Petrick & Sirakaya, 2004), social space (Yarnal & Kerstetter, 2005), perceived value (Petrick, 2003), quality and satisfaction (Petrick, 2004b), differences between repeaters and first timers (Petrick, 2004c), repurchase intentions (Petrick, 2004b; Petrick et al., 2007; Petrick,

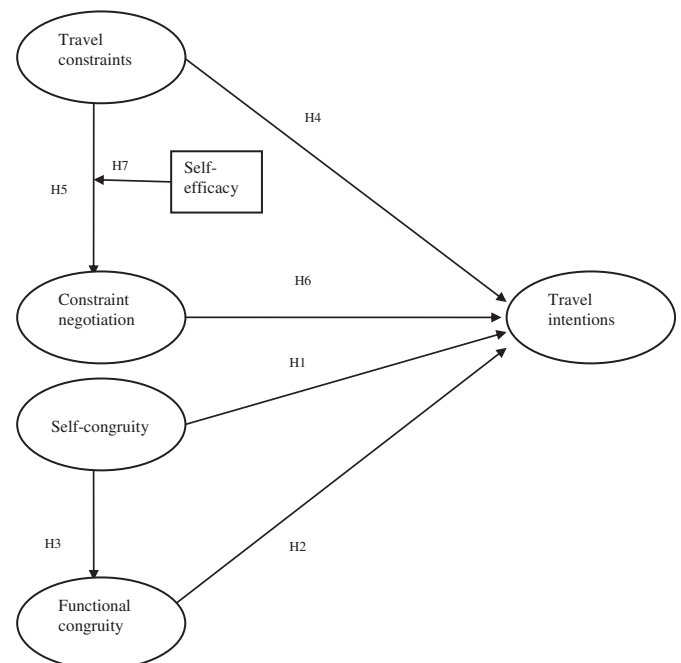


Fig. 1. Congruity, constraints, and self-efficacy model.

Tonner, & Quinn, 2006), tourist bubble (Jaakson, 2004), and globalization/macdonaldization (Weaver, 2005).

Past studies have examined intentions to take a cruise utilizing the choice sets model; quality, value and satisfaction; critical incident technique, and the investment model. This study intends to understand intentions to take cruise vacations from an alternative perspective which is guided by the framework of Motivation–Opportunity–Ability (MOA) (MacInnis & Jaworski, 1989). It is believed that the use of this model will provide a unique perspective as it will examine both the reasons why someone might intend to take a cruise (motivation and opportunity), and those things that might be preventing them from being able to (lack of opportunity and inability).

3. Research methods

The measurement scales of congruity and constraints constructs were developed according to Churchill's (1979) recommended measurement scale development procedures. The first step was to generate an item pool to measure each construct. A comprehensive literature review was first conducted to generate a list of measurement items. Additional items were added to the list based on the results of 53 semi-structured interviews. The interview participants were recruited via convenience sampling. The list of measurement items derived from both literature review (*Self-congruity*: Baloglu & Love, 2005; *Functional congruity*: Kerstetter et al., 2005; Park, 2006; *Cruising constraints*: Kerstetter et al., 2005; Park, 2006) and interviews was then submitted to a panel of experts comprised of seven tourism researchers. The panel judged the applicability of the measurement items to the study. The list was then recomputed based on the expert panel's opinions and according to which, a draft of the questionnaire was then designed.

The resulted questionnaire was pre-tested with 293 undergraduate students. An exploratory factor analysis (EFA) was performed on the data to determine the dimensions of the scales. To ensure that each attribute load only on one factor, the items which have factor loadings lower than .4 or cross-loaded on more than one factor were eliminated (Gursoy & Gavcar, 2003). The internal reliability of each factor was then measured by using Cronbach's alpha. A low alpha coefficient suggests that the item has a low contribution to the measurement of construct of interest (Churchill, 1979). The reliability of each item was further examined by using item-to-total correlations. Items with lower than .5 item-to-total correlations were eliminated (Chen & Hsu, 2001; Zaichkowsky, 1985).

For self-congruity and functional congruity, seven semantic differential scales (7-point) were resulted to measure self-congruity and nine items were used to measure functional congruity. Congruence indices were computed based on the absolute arithmetic difference between the two corresponding concepts along the same measurement items. This method has also been termed "D-measure" in past studies (Birdwell, 1968; Dolich, 1969; Ross, 1971). For self-congruity, comparison was made between ideal self-image and affective image of cruise vacation. For functional congruity, comparison was made between ideal functional images of cruising and cognitive images of cruising along the same attributes.

For travel constraints associated with cruising, four dimensions of constraints were identified in this study: intrapersonal, interpersonal, structural, and not-an-option constraints. The measurement included 18 constraint items. A 5-point Likert-type scale (1 = "strongly disagree," 5 = "strongly agree") was used to measure each constraint item.

As for constraint negotiation measurements, the study employed a revised version of Loucks-Atkinson and Mannell's

(2007) constraint negotiation scales. Since the original scale was developed for leisure activities participation among individuals with fibromyalgia, the items were slightly modified and reworded to adapt to a cruise tourism context (Table 1). Some items were not included due to their inapplicability to the study context. As a result, 16 measurement items were derived. Consistent with Loucks-Atkinson and Mannell (2007), a 5-point Likert-type scale (1 = "Never," 5 = "Very Often") was used to measure each negotiation strategy item.

Self-efficacy has often been measured by asking respondents their level of confidence for performing certain behaviors (e.g., Bandura, Adams, Hardy, & Howells, 1980; Giacobbi et al., 2005; Loucks-Atkinson & Mannell, 2007). Following Loucks-Atkinson and Mannell (2007), this study evaluated negotiation efficacy by asking respondents to indicate their level of confidence for executing each constraint negotiation strategy item. A confidence scale (0–100%) was used in which 0% meant "very uncertain" while 100% meant "very certain." This measurement has been used frequently in health related studies and has been referred to as "standard measurement of self-efficacy strength" by Maibach and Murphy (1995, p. 44).

The measurement of travel intentions was adopted from Zeithaml, Berry, and Parasuraman (1996) (Table 1). The loyalty component of behavioral intentions was chosen in this study to measure behavioral intentions for its consistent satisfactory factor loadings across different studies similar to Tian-Cole, Crompton, and Willson (2002), Baker and Crompton (2000), and Lee (2005). This

Table 1
Comparison of demographic characteristics respondents in current study and CLIA (2008) study.

	2008 Cruise market profile study	Present study
Age		
25–29	7%	5.7%
30–39	22%	21%
40–49	28%	21.7%
50–59	24%	21.2%
60–74	17%	20%
75+	3%	10.1%
Average	48	51
Median	45	50
Income		
\$40,000 to less than \$50,000	14%	12.3%
\$50,000 to less than \$60,000	29%	26.4%
\$75,000 to less than \$100,000	20%	24.7%
\$100,000 to less than \$200,000	30%	31.8%
\$200,000+	6%	4.8%
Average (in 1000s)	\$98	\$95
Median (in 1000s)	\$79	\$87.5
Gender		
Male	50%	50.7%
Female	50%	49.3%
Marital status		
Married	84%	74%
Single/divorced/separated	16%	26%
Employment status		
Full-time	63%	58%
Retired	14%	25.6%
Education background		
College grad or higher	62%	37.6%
Post graduate	38%	27.6%
Ethnic background		
White	89%	86.7%
Black	5%	3.4%
Other	5%	9.9%

measure contains four intention measurement items. A 5-point Likert-type scale (1 = “strongly disagree,” 5 = “strongly agree”) was used to measure each behavioral intention item.

An online panel, which consists of “individuals who are pre-recruited to participate on a more or less predictable basis in surveys over a period of time” (Dennis, 2001, p. 34), was then formed to collect data. To enhance the representativeness of study sample, only those panel members who were 25 years old or older and annual household incomes of \$25,000 or more were invited to participate in the survey. It has been suggested that people with such profile are the target market of cruise line companies (CLIA, 2008). A qualified online panel in the United States was acquired from an online panel company. Subjects were randomly selected from the company’s database. The members were recruited from across the country, and their background information was cross-validated with other databases built for specific industries such as consumer financial services. To avoid receiving duplicated responses from each subject, the company performed an Internet Protocol (IP) address check to match respondents’ declared location with their actual location. Nine hundred and ninety responses were yielded in the current study. Since the motivations of non-cruisers may differ from cruisers, the study included only cruisers to test the hypotheses and model. Data cleaning resulted in 564 valid responses.

To examine if the current sample was a reasonable representation of the population of interest, the demographics of the present sample were compared with the 2008 cruise market profile reported by a national online study conducted by Cruise Line International Association (CLIA, 2008). The study (CLIA, 2008) suggested that about 97% of the cruise market meets these two criteria. Since statistical comparison is not feasible due to the unavailability of the previous data, the following comparisons are mainly descriptive. Table 1 provides a descriptive comparison of demographic characteristics of cruisers in the current study and CLIA’s (2008) study. The two samples share many similar characteristics. For instance, both samples had half–half gender distributions. The age and income profiles of the two samples were also similar. Additionally, a majority of respondents in both groups were married, worked for full-time, and were Caucasian.

4. Findings

Next, the conceptual model and hypothesized relationships were tested. Structural Equation Modeling (SEM) was then performed with Analysis of Moment Structures (AMOS 17.0) to determine the overall fit of the proposed model with the data, including the causal relationships between major variables measured, and the influences of constructs of interest on behavioral intentions.

4.1. Reliability and validity of measurement scales

The reliabilities of all constructs were determined by both Cronbach’s alpha and composite reliability. It was found that Cronbach alphas and composite reliability of all constructs in the current study were larger than .70 which suggests satisfactory reliability of all measurement scales.

Convergent validity refers to the extent of correlation between the intended measure and other measures used to measure the same construct (Clark-Carter, 1997). This can be examined by using *t*-tests (Bollen, 1989). A statistically significant contribution of an item to its posited underlying construct suggests adequate convergent validity of the measurement (Anderson & Gerbing, 1988; Marsh & Grayson, 1995). It can be argued that convergent validity was established all factor loadings were greater than .5 and statistically significant ($\alpha < .001$).

Discriminant validity refers to the extent of dissimilarity between the intended measure and the measures used to indicate different constructs (Clark-Carter, 1997). It can be examined by assessing the correlations among variables. Discriminant validity has been argued to be established when the correlation between two variables is .85 or less (Kline, 2005). It was found that all constructs’ correlations were smaller than .8 except for the two constraint negotiation variables: “improving finances” and “time management” ($r = .857$). To improve the discriminant validity, these two factors were merged into one factor.

Additionally, based on the modification indices (Byrne, 1998; Maruyama, 1998; Netemeyer, Bearden, & Sharma, 2003), four constraint items (i.e., “My family/friends do not cruise”, “I might not like my dinner companions on a cruise”, “There are many other travel alternatives that I’d like to do before cruising”, and “I worry about security on cruise ship”) and two constraint negotiation items (i.e., “Budget my money for cruising” and “Plan cruising around my family/friend’s work time”) were removed due to cross-loadings. All measurement scales were then retested for reliability as well as convergent and discriminant validity. It was found that all constructs met the requirements of reliability (both composite reliability and Cronbach’s Alpha) (Table 2). While the discriminant validity of all constructs met Kline’s (2005) requirement, the validity of the constraints to cruising construct deviated from a desirable level when measured by average variance extracted (AVE) (Fornell & Larcker, 1981), which is considered to be a more stringent validity measure (Table 3).

By looking at the AVE’s it is apparent that the constraints factors were intercorrelated. The factors that were too correlated include: 1) Intra and interpersonal; 2) Intra and Structural; 3) Intra and Structural; and 4) Inter and Structural. By their nature, constraints should be correlated as one constraint is often a cause, or an indicator of another one. For each correlation, an explanation can be made for why they are correlated: 1) If one has health or fears of going on a trip, they are less likely to have a companion to go with; 2) Poor health, diet or fear make it difficult to have time to go; 3) If one can’t find a companion, it may be a difficult time to go, and 4) if one doesn’t have time to go, they might not be interested in going. These factors were allowed to be intercorrelated in the model due their nature, and so that the individual constraint factors could be identified for practical purposes.

4.2. Model fitting and hypotheses testing

To examine the overall fit of the MOA model, the grand model (Fig. 2) with all constructs of interest (Self-congruity, functional congruity, travel constraints, constraint negotiation, and travel intentions) and hypothesized relationships were tested in AMOS. The fit of the proposed model was examined with using of some fit indices. Since the use of Chi-square index has been found to be sensitive to sample size (Byrne, 2001), including other fit indices was necessary in order to gain a holistic understanding of the overall fit between the tested model and data. Since Root Mean Square Error of Approximation (RMSEA) (Steiger & Lind, 1980) and Comparative Fit Index (CFI) (Bentler, 1990) have been reported (Fan, Thompson, & Wang, 1999) to be less sensitive to sample size, they were included in the current study.

Although no definite rule has been set to determine what constitutes an adequate fit of a model, some general rules of thumb can be used as guidelines for model fit interpretation (Maruyama, 1998; Schermelleh-Engel, Moosbrugger, & Müller, 2003). The results ($\chi^2 = 2673$; $df = 935$; $RMSEA = .057$; $CFI = .901$; $IFI = .902$; $NFI = .856$) are somewhat mixed as to whether the model is a good fit, though the indices most often recommended in the literature

Table 2
Results of confirmatory factor analysis.

	Composite reliability	Cron. alpha	Factor loading	Mean	SD ^a
<i>Self-congruity</i>	.913	.903			
• Exciting—gloomy (ISC2)			.608	5.19	.905
• Pleasant—unpleasant (ISC3)			.811	5.32	.938
• Relaxing—distressing (ISC4)			.724	5.27	.965
• Enjoyable—not enjoyable (ISC5)			.860	5.35	.902
• Comforting—uncomforting (ISC6)			.791	5.11	1.003
• Calming—annoying (ISC7)			.704	5.14	.990
• Fun—boring (ISC8)			.788	5.34	.951
<i>Functional congruity</i>	.937	.886			
• Cruise ships provide excellent service. (FC5)			.736	5.55	.692
• I'll have higher than average service if I go on a cruise. (FC6)			.698	5.47	.762
• Cruising means lots of eating options. (FC12)			.661	5.58	.727
• Cruise ship staff will care for my needs. (FC3)			.745	5.51	.750
• Cruising provides me an opportunity to eat good food. (FC13)			.725	5.57	.705
• Cruising has a variety of activities available. (FC4)			.671	5.63	.663
• Cruising provides me an opportunity to engage in activities different from those available at home. (FC8)			.589	5.54	.735
• Cruising has a wide range of itineraries for everybody. (FC10)			.638	5.50	.724
• Cruising has good entertainment. (FC7)			.676	5.45	.763
<i>Travel constraints</i>					
<i>Intrapersonal</i>	.889	.887			
• I need a special diet that is not available on a cruise. (C12)			.839	1.45	.923
• I can't cruise because I have poor health. (C3)			.790	1.48	.939
• I don't cruise because I have claustrophobia. (C5)			.841	1.46	.918
• I have sea-sickness/motion-sickness. (C17)			.656	1.83	1.194
• I have a fear of the water/ocean. (C1)			.623	1.69	1.057
• I don't cruise because my spouse/partner has poor health. (C18)			.824	1.47	.962
<i>Interpersonal constraints</i>	.782	.830			
• I have no companion to go on a cruise with. (C10)			.778	1.77	1.279
• I might be lonely on a cruise. (C16)			.931	1.69	1.086
<i>Structural constraints</i>	.769	.825			
• It's difficult for me to find time to cruise. (C11)			.796	2.16	1.319
• I don't cruise due to my work responsibilities. (C9)			.892	1.80	1.200
• I don't cruise because I have too many family obligations. (C2)			.680	1.92	1.184
<i>Not an option</i>	.887	.902			
• I am not interested in cruising. (C6)			.891	1.61	1.071
• Cruising never occur to me as a travel option. (C8)			.873	1.70	1.087
• Cruising is not my family's lifestyle. (C7)			.843	1.79	1.109
<i>Constraint negotiation</i>					
<i>Improving finances & time management</i>	.922	.938			
• Save up money to cruise. (N10)			.765	3.32	1.163
• Find a cruise that best fits within my budget. (N2)			.693	3.49	1.067
• Learn to live in my financial means. (N12)			.494	3.28	1.210
• Find a cruise that best fits my time limitations. (N9)			.750	3.44	1.172
• Set aside time for cruising. (N4)			.848	3.22	1.115
• Plan ahead for things so that I can cruise. (N5)			.918	3.49	1.122
• Be organized so that I can cruise. (N6)			.905	3.42	1.110
• Prioritise what I want to do, and make cruising a priority sometimes. (N7)			.871	3.34	1.113
<i>Changing interpersonal relations</i>	.801	.856			
• Try to find people with similar interests to cruise with. (N14)			.877	2.77	1.244
• Find people to cruise with. (N3)			.766	2.88	1.218
• Organize cruising with my own group. (N13)			.829	2.64	1.270
<i>Travel intentions</i>	.924	.924			
• I'll say positive things about cruising to other people. (I1)			.862	4.36	.916
• I intend to cruise in the next 3 years. (I2)			.707	4.15	1.171
• I'll recommend cruising to others. (I3)			.983	4.35	.963
• I'll encourage friends and relatives to go on a cruise. (I4)			.928	4.31	.998

^a SD refers to standard deviation.

(Byrne, 2001; Kline, 2005) (CFI and RMSEA) and IFI suggest a good fit (Fig. 2). Kenny (2010) recommends CFI be used instead of NFI, as NFI cannot get smaller if more parameters are added to the model. The low NFI in the current study might be due to how parsimonious the model is. The mixed findings are also likely due to correlations

between the constraint items, which were allowed to correlate due to their nature (they are intercorrelated) and their contribution to understanding the phenomena studied.

Further effort was invested in testing the hypothesized relationships among the constructs in the overall model. The regression paths

Table 3
Discriminant validity of measurement scales.

	Correlations								
	Intrapersonal constraints	Interpersonal constraints	Structural constraints	Not an option	Improving finances & time	Changing interpersonal relations	Self-congruity	Functional congruity	Travel intention
Intrapersonal constraints	.574								
Interpersonal constraints	.730	.644							
Structural constraints	.671	.565	.529						
Not an option	.769	.597	.534	.723					
Improving finances & time	.015	-.078	-.072	-.312	.631				
Changing Interpersonal relations	.211	.144	.126	.016	.590	.574			
Self-congruity	-.035	-.026	.078	-.275	.345	.209	.602		
Functional congruity	-.063	-.105	-.089	-.292	.287	.156	.322	.626	
Travel intention	-.239	-.250	-.139	-.598	.493	.211	.440	.386	.754

Numbers displayed in bold are the square root of the average variance extracted for that factor.

(corresponding to hypotheses 1–6) for the grand model are displayed in Table 4. All hypotheses were supported by the data except for hypothesis 5, which examined the interaction between travel constraints and constraint negotiation. It was hypothesized in the

study that the experience of travel constraints would stimulate the use of constraint negotiation strategies. However, this was not the case in the current study. The relationship between travel constraints and constraint negotiation was found to be insignificant ($p = .136$).

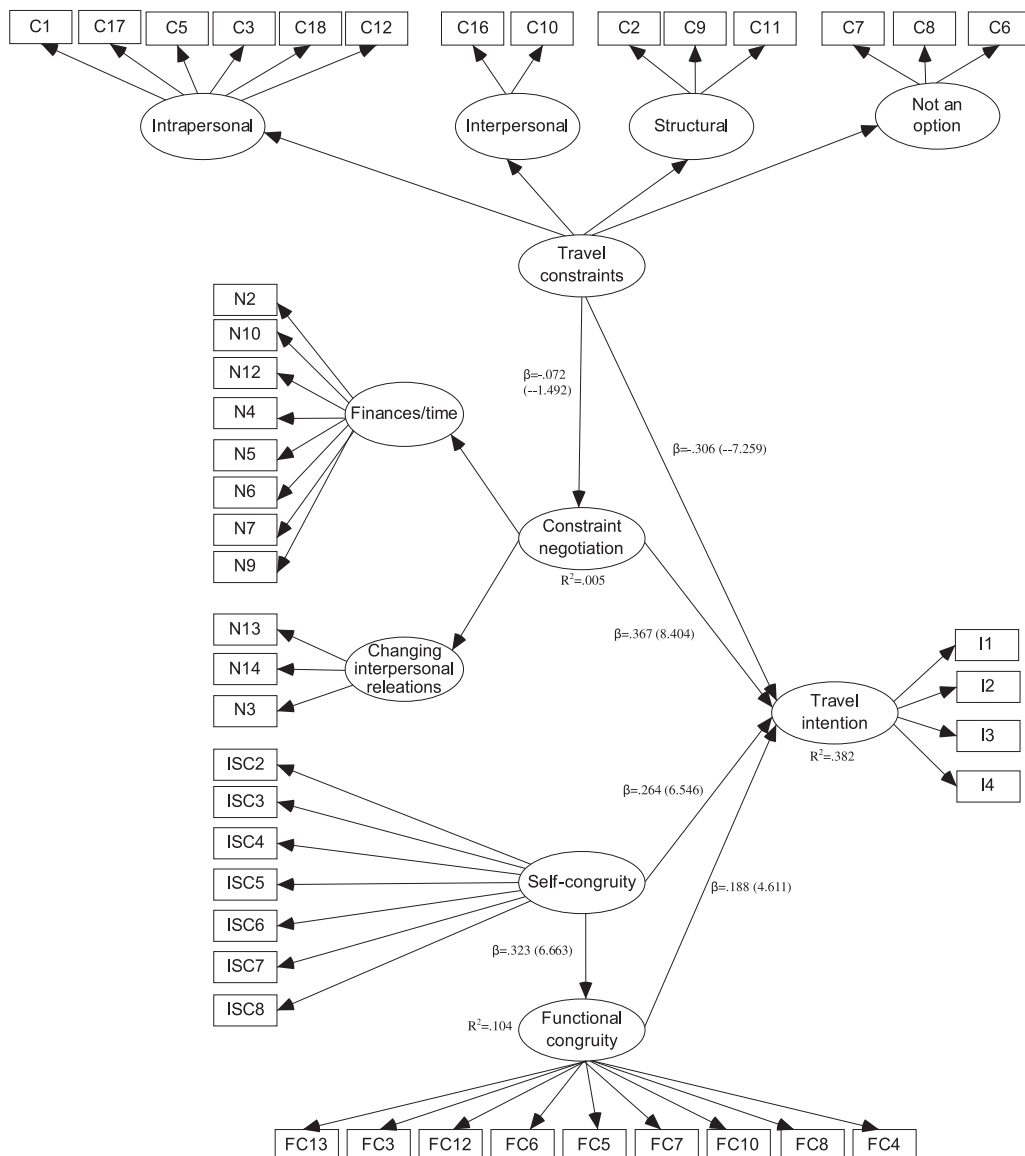


Fig. 2. Testing the effects of congruity, travel constraints, and self-efficacy on travel intention. Note: t -values are stated in parenthesis.

Table 4
Regression paths of the MOA model.

Hypotheses	Regression paths coefficient	Standard path	Standard error	Critical ratio (t-value)	p	Support of hypotheses
H1	Self-congruity → travel intention	.264	.041	6.546	***	Supported
H2	Functional congruity → travel intention	.188	.069	4.611	***	Supported
H3	Self-congruity → functional congruity	.323	.029	6.663	***	Supported
H4	Constraints → travel intention	-.306	.052	-7.259	***	Supported
H5	Constraints → negotiation	-.072	.054	-1.492	p = .136	Partially supported
H6	Negotiation → travel intention	.367	.048	8.404	***	Supported

* $p < .05$, ** $p < .01$, *** $p < .001$.

The effect of the moderator, self-efficacy, on constraint negotiation (hypothesis 7) was performed by using invariance testing. Respondents were divided into two groups: high and low self-efficacy. Following Bandura et al. (1980) and Loucks-Atkinson and Mannell (2007), two steps were adopted to compute the average strength of self-efficacy for each subject: 1) the scores for each self-efficacy item was summed; then 2) the overall score was averaged by the number of self-efficacy item. The maximum possible score for the strength of self-efficacy was 100 and the minimum possible score for the strength of self-efficacy was 0. The mean self-efficacy score yielded in the study was 62.80. Thus, persons with scores lower than 62.80 were classified into the low self-efficacy group and scores higher than 62.80 were classified into the high self-efficacy group. The sample sizes for the high self-efficacy and low self-efficacy groups were 318 and 246 respectively.

The structural model was tested across these two groups to determine if the structural paths performed differently across the two groups. To accomplish this, the study followed three steps of invariance testing (Bollen, 1989; Kyle, Bricker, Graefe, & Wickham, 2004): 1) a baseline model was first tested with an aggregated sample; 2) the baseline model was then tested separately with each group of sample; and 3) the equivalence of the regression coefficients was tested across the two groups. The first two steps were to test the plausibility of the model structure with both an aggregated sample and two sample groups; the last step was to test hypothesis 7, which was concerned with the equality of path coefficients across high and low self-efficacy groups.

The fit indices ($\chi^2 = 2673$; $df = 935$; $RMSEA = .057$; $CFI = .901$) indicated that the proposed model had an acceptable fit to the pooled data. Therefore, the baseline model was established. This model was then tested separately with high-efficacy ($\chi^2 = 2159.7$; $df = 935$; $RMSEA = .064$) and low-efficacy ($\chi^2 = 1828.7$; $df = 935$; $RMSEA = .062$) groups. The results suggested that the model had an acceptable fit to both efficacy groups and indicated similar factor structures across the two groups.

An invariance test followed in which the chi-square change was recorded after each test was performed to determine if the "Travel constraints → Constraint negotiation" regression path was significantly variant across the two groups. All regression paths in the high-efficacy group were first forced to be invariant to the low-efficacy group in the test. Then, the "Travel constraints → Constraint negotiation" regression path was unconstrained. The chi-square of the unconstrained model was compared to the chi-square of the constrained model. The results suggested that there was a statistically significant change in chi-square ($\Delta\chi^2 = 11.9$; $\Delta df = 1$). The significant chi-square change indicated that the regression path was not equivalent across high and low self-efficacy groups. Therefore, hypothesis 7 was supported. Further investigation was conducted to reveal if travel constraint influences constraint negotiation differently across high and low-efficacy groups. It was found that the effect was significant across both groups, but in different directions (Table 5). While travel constraints were found to negatively

influence constraint negotiation in the high self-efficacy group, the effect was positive in the low-efficacy group. Therefore, hypothesis 5 was revised to be partially supported.

5. Discussion and implications

The purposes of the study were to propose and empirically test an alternative travel decision-making model (i.e., the MOA model), and to examine the role of travel motivation, opportunity, and ability on travel intentions. Seven hypotheses were proposed and subsequently tested in the context of cruise tourism with five of them being supported and two of them being rejected by the data (Table 6).

The first two hypotheses tested the effects of two types of congruity (self-congruity and functional congruity) on travel intentions. Using self-congruity and functional congruity to measure travel motivation, this study provides further evidence of the influences of both rational and hedonic factors on travel intention. It also corresponds with Jackson's (2005) call on taking both aspects into account when investigating leisure/travel behaviors. However, the low standard path coefficients (Self-congruity → Travel intentions: .264; Functional congruity → Travel intentions: .188) signals low predicting power of congruity constructs on intentions to cruising. Future research should investigate if other travel motivational factors can better explain travel intentions.

Hypothesis 3 suggested that functional congruity was positively influenced by self-congruity. The data suggested that this was the case, as results provided evidence for the interaction between self-congruity and functional congruity predicted by Sirgy et al. (1991) and Sirgy and Su (2000). This implies that people who encounter self-congruity are more likely to distort their functional congruity into a positive direction. Therefore, understanding of the relationships between them is more likely to present a more holistic picture of congruity constructs. Cruise managers should strive to increase cruisers' self-congruity via various means such as promotional campaign to align cruise vacation images with cruisers' self-images. For instance, being a fun person has been reported by most respondents as their ideal self-image. A fun image of a cruise vacation delivered in the promotional campaign to could inevitably increase this market's self-congruity.

Hypothesis 4 investigated the negative influence that travel constraints have on travel intentions. This hypothesis was supported by the current study. This represents the adverse effects that

Table 5
Influence of travel constraints on constraint negotiation across two efficacy groups.

Efficacy group	Standard path coefficient	Standard error	Critical ratio (t-value)	p
High self-efficacy	-.161	.071	-2.557	**
Low self-efficacy	.341	.078	4.050	***

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table 6
Summary of hypothesis testing.

Hypotheses	Results of testing
H1: The congruity between self-images and affective destination images influences people's travel intentions. The more congruent images are, the more likely people would like to travel to the destination.	Supported
H2: The congruity between ideal functional images of destination attributes and cognitive destination images along the same attributes influences people's travel intentions. The more congruent images are, the more likely people would like to travel to the destination.	Supported
H3: Functional congruity is positively affected by self-congruity. People who have higher congruence between their self-images and affective destination images are more likely to have higher functional congruity toward the destination.	Supported
H4: Travel constraints negatively influence travel intentions. The higher the level of travel constraints a person experiences, the less likely the person would like to travel.	Supported
H5: The presence of travel constraints initiates adoption of constraint negotiation strategies. The more constrained a person is, the more likely the person will use negotiation strategies.	Partially supported
H6: Constraint negotiation positively influence travel intentions. The more constraint negotiation strategies a person adopts, the more likely the person would like to travel.	Supported
H7: Self-efficacy moderates the relationship between travel constraints and constraint negotiation.	Supported

travel constraints have on intention to cruise. Although the study of constraints to leisure can be traced back to as early as the 1960s (Buchanan & Allen, 1985), the investigation on travel constraints is limited (Kerstetter et al., 2005). This study contributes to the leisure constraints literature by expanding its implication to a cruise tourism context.

The results of the study suggest that travel constraints are an important variable influencing travel intentions. It is recommended that cruise managers therefore try to alleviate people's travel constraints. For instance, to reduce people's intrapersonal constraints such as worries about security on the cruise ship, the cruise may reveal its safety record to potential travelers. A pre-boarding orientation may also be organized to deliver safety information as well as to instruct passengers on some safety tactics.

To reduce people's interpersonal constraints such as lack of companionship, cruise management may organize a dating service to match those people who are looking for partners on the cruise ship. For structural constraints, most respondents were concerned with their limited time and family/work obligations. The cruise may promote its facilities such as internet access and child care services which allow people to work or be worry-free while having a vacation.

Hypothesis 5 tested if the experience of travel constraints stimulated the use of constraint negotiation strategies. This hypothesis was rejected by the pooled data. However, when the data was separated into high and low self-efficacy groups, travel constraints significantly influenced constraint negotiation differently across two groups. While travel constraints negatively influenced the high self-efficacy group, the effect was positive in the low-efficacy group. In other words, while travel constraints stimulated the use of constraint negotiation strategies in the low-efficacy group, the reverse was found to be true for high-efficacy people. This might be because a cruise vacation, which is commonly known as an all-inclusive vacation, is more preferred by low self-efficacy travelers who like to be taken care of during their travel. This preference may result in their more willingness to negotiate their constraints to cruising. On the contrary, since the high self-efficacy people have more confidence in themselves, they might easily switch to other alternatives when encountering constraints to cruising.

Hypothesis 6 examined the influence constraint negotiation had on travel intentions. The study provided evidence for this relationship, which implied that those people who put more effort on negotiating their constraints were also more likely to travel than those who invested less effort on constraint negotiation. The findings from hypotheses 4 to 6 validated Hubbard and Mannell's (2001) constraint-effects-mitigation model except for the path between travel constraints and constraint negotiation. This indicates that behavioral intentions can be explained by multiple paradigms, and the MOA

model is one of them. The application of the MOA model in the current study corresponds to Simonson et al.'s (2001) comments on the appropriateness of using different models to explain consumer behavior due to its complexity.

Hypothesis 7 tested the moderating effect of self-efficacy on the path between travel constraints and constraint negotiation. The sample was divided into high-efficacy and low-efficacy groups for invariance testing. Although a moderating effect of self-efficacy was not found for the path between travel constraints and constraint negotiation, it was found on the path between self-congruity and travel intentions. This indicates that caution should be taken when interpreting self-efficacy as a moderator in the MOA model as it might not moderate all regression paths in the model.

The overall fit of the MOA model was also tested in the study, and the results suggest that the model had an acceptable fit to the data. This provided evidence for validating the MOA model, and suggests that travel decisions are a function of travel motivation (i.e., self-congruity and functional congruity), travel opportunity (i.e., travel constraints), and ability to travel (i.e., self-efficacy). Therefore, the MOA model appeared to be a useful framework for understanding the influences on travel intentions. This also extends the implications of the MOA model to the context of cruising. Cruise managers may be able to utilize this model to interpret the factors influencing people's intention to cruise.

In addition, traditional decision-making models usually interpret tourist decision making as a multi-stage process through which tourists derive their travel decisions logically and rationally. It is argued that the MOA model provides a parsimonious structure in which decision making can be explained. This model is comprised of three components: motivation, opportunity, and ability. This approach is deemed to be straight forward and can be easily understood by both scholars and practitioners. The practitioners may use this framework to diagnose causes for the reluctance of people to take a cruise vacation and implement strategies accordingly to alleviate their concerns.

6. Concluding remarks

In summary, this study explored different factors which influence people's intentions to take a cruise vacation. An alternative travel decision model was proposed and empirical tested. The proposed model was constructed based on the MOA framework, in which behavior is affected by three antecedents: motivation, opportunity, and ability. In the current study, motivation was measured by both self-congruity and functional congruity; opportunity was measured by constraints to cruising; and ability was measured by self-efficacy. The proposed model was tested in cruise tourism and was found to have an acceptable fit to the data, which

provided evidence for validating the MOA model. Since the current study was an initial attempt to apply the MOA model to the context of cruise tourism, further investigation will be needed to validate the model in other study contexts.

The study used self-congruity and functional congruity to measure travel motivation. However, in the tourism literature, travel motivations have been traditionally measured with the travel motivation scale originally developed by Crompton (1979). Without direct comparison, it is unknown which measurements are more effective in measuring travel motivation. Therefore it is believed that further investigation comparing Crompton's (1979) measures of motivation with congruity measures of motivation would contribute to this body of knowledge.

Past studies have also suggested that repeaters and first timers are different in many aspects such as their perceived value and quality (Petrick, 2004a), travel motivations and intended activities (Lau & Mc Kercher, 2004), and visitation pattern (Oppermann, 1997). It would be interesting to investigate if the MOA model performs differently across non-cruisers, first timers and repeat cruisers.

The study was pilot-tested among 293 undergraduate students. Although this presents a homogeneous sample for developing measurement scales, the results would have been more convincing if the profile of these respondents were more similar to the target market of cruise companies. Also, although panel surveys are a common data collection method and have been practiced widely in different fields including: consumer behavior (e.g., Lohse, Bellman, & Johnson, 2000), health (e.g., Contoyannis, Jones, & Rice, 2004), communication (e.g., Beaudoin, 2007), leisure (e.g., Kuentzel & Heberlein, 2006), and travel (e.g., Li & Petrick, 2008a, 2008b), non-internet users are excluded from the samples. Future research may test the proposed model with a sample including offline cruisers.

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