INVESTIGATING ONLINE DECISION-MAKING STYLES

A Dissertation

by

YOUNG A PARK

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2007

Major Subject: Recreation, Park and Tourism Sciences

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ABSTRACT

Investigating Online Decision-Making Styles. (August 2007)

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As one of the factors influencing consumers purchase behavior, decision-making styles are crucial for understanding consumer shopping behavior and for developing successful marketing strategies. Decision-making styles have been mainly viewed as a relatively enduring consumer personality that seldom changes even when applied to different goods and situations. Recently, a study showed that consumer decision-making styles are influenced by product type, suggesting that decision-making styles are individual response patterns in a specific decision context rather than personality trait based. Despite extensive research regarding consumer decision making styles, relatively little attention has been paid to identify whether consumer decision-making styles are truly personality trait based or context-dependent. Thus, this work challenged the theory that decision-making styles are personality trait based and investigated whether decision-making styles are context dependent.

Three independent studies, focusing on extending our knowledge regarding consumer decision-making styles, were conducted. The first study examined whether consumer decision-making styles depend on channel type (online versus offline

channels). In addition, it explored new types of decision-making styles which better represent current consumer needs and preferences. Study results supported previous arguments suggesting that decision-making styles are not personality trait based but vary across contexts. Results also demonstrated the need to continuously observe consumers' decision-making styles and capture emerging new styles. The second study explored whether product characteristics, specifically intangibility and non-standardization, influence consumer decision-making styles in an online context. At the same time, this study examined whether there is any interaction effect between product type and product involvement. The results showed that certain types of online decision-making styles are influenced by product type. The results also showed that product involvement has an important role in influencing online decision-making styles. The third study investigated whether consumer online decision-making styles influence loyalty toward online travel agencies. The results of the study provide support for five out of eleven hypotheses, indicating that consumers' online decision-making styles significantly influence loyalty toward online travel agencies. Finally, the overall findings, limitations of the studies, agenda for future research, and practical and theoretical implications were discussed.

DEDICATION

To my parents, parents-in-law, and husband

&

To my lovely son and daughter

Yoon Dong and Ju Yeon

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I would have never been able to finish this dissertation without the following faculty, family, and friends whose assistance, support, and cooperation sustained me throughout the entire time.

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CHAPTER I

INTRODUCTION

Problem Statement and Objectives

The travel and tourism industry is considered a medium that not only stimulates

enormous investment in infrastructure, but also helps to improve the conditions of local

people (Word Tourism Organization (WTO), 2007). According to the WTO (2007),

whereas 25 million international tourists arrived in 1950, 806 million international

tourists were estimated in 2005 (6.5 percent annual growth). The substantial growth of

tourism implies that it is one of the most remarkable economic and social phenomena of

the past century. However, recent developments in information technologies are

bringing new opportunities and challenges to travel and tourism businesses. In particular,

the way the organization distributes their tourism products to consumers and the

consumer's search for and purchase of tourism products are significantly changing.

According to the Travel Industry Association (TIA) (2005) of America, the

number of tourism Web sites has increased at an unprecedented rate during the last few

years and consumers' tourism-related shopping activities on the Internet have reached

significant levels. More and more consumers purchase tourism products (e.g. airline

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This dissertation follows the style of *Tourism Management*.

tickets, hotel rooms, car rental, vacations and cruise packages, and tickets for cultural events and museum/festival tickets) through online tourism Web sites such as online travel agencies, travel search engines, and supplier Web sites rather than traditional travel agencies. EyeforTravel (2006) reports that $128 billion in travel will be sold online in the U.S. in 2011.

This implies that travel revenue will increase 38% in 2011 compared to 2006. Concomitant with the rapid growth of the Internet, travelers' shopping behavior online is becoming a major research topic. However, despite increases in online shopping for both tourism and non-tourism products, little research are focused on decision-making styles of consumers. In the consumer behavior literature, most studies assume that all consumers approach shopping with certain decision-making traits that combine to form a consumer's decision-making styles (Walsh, Wayne-Mitchell, & Hennig-Thurau, 2001b).

Sproles and Kendall (1986) suggested that decision-making styles are to be viewed as a relatively enduring consumer personality, analogous to the more general concept of personality in psychology. Namely, consumers adhere to a basic buying-decision-making style even when applied to different goods and situations (Walsh, Hennig-Thurau, Wayne-Mitchell & Wiedmann, 2001a). However, Scott & Bruce (1995) argued that decision-making styles are more individual response patterns in a specific decision context rather than personality trait based. Recently, a study showed that consumer decision-making styles are influenced by product type (Bauer, Sauer, & Becker, 2006) and supported the argument that decision-making styles are not stable personality traits. Although some researchers are aware that consumer may have

different styles across product categories (Sproles & Kendall, 1986; Bauer et al., 2006), few studies provide clear evidence whether or not decision-making styles are influenced by contextual factors.

Thus, the main purpose of this dissertation is to investigate whether consumer decision-making styles are context dependent. To examine it, this tests whether consumer decision-making styles are influenced by channel type. Past research has shown that the Internet represents a sufficiently different retail environment and a different atmosphere which can significantly influence the emotions and motivations of shoppers and thereby affect their buying behavior (Menon & Kahn, 2002). In addition, many studies have argued that online shoppers and non shoppers have different personal characteristics and that there is a significant difference between online shopping and offline shopping (Hoffman & Novak, 1996; Childers, Carr, Peck, & Carson, 2001; Parsons, 2002; Vijayasarathy, 2002; Card, Chen, & Cole, 2003, Kau, Tang, & Ghose, 2003).

Within the umbrella, this study also aims to test whether online decision-making styles vary within the context of different product types. Although some studies already demonstrated that consumer's shopping behavior can vary according to product characteristics, (Vijayasarathy, 2002), there is limited understanding of how product type influences consumer online decision-making styles. This dissertation attempts to test whether product characteristics influence consumer decision-making styles in an online context since different products and services can be influenced by the channel's strengths and weaknesses (Vijayasarathy, 2002).

Finally, this dissertation examines whether consumer online decision-making styles influence loyalty toward online travel agencies (OTAs). Whereas many researchers have studied loyalty (in e-commerce setting) in non-tourism areas, few studies have considered it in a tourism context (Park & Gretzel, 2007). In particular, despite fast growth in the number of online travel shoppers, no study has addressed whether online travel shopper decision-making styles influence their loyalty toward a certain type of Web site.

This dissertation argues that the literature of decision-making styles has been limited in four main ways: (1) no study has focused on decision-making styles to better understand new customer's needs and preferences regarding shopping behavior; (2) few studies have been conducted to compare consumers' decision-making styles, in particular, when they shop online vs. offline; (3) there is limited understanding of the relationship between product type and consumer online decision-making styles; and (4) no major concerns have been addressed regarding online travel shopper decision-making styles and their influence on loyalty.

Taking the above considerations into account, the proposed attempts 1) to update the research instrument used to test decision-making styles of consumers; 2) to investigate consumer decision-making styles in different channel context; 3) to examine consumer decision-making styles in different product types; and 4) to test the relationship between travel shoppers online decision-making styles and their loyalty toward OTAs.

Significance of the Study

A Theoretical or Research Point of View

Many researchers have concentrated on investigating factors that influence consumer purchasing behavior. As one of the factors, decision-making styles have received a significant amount of attention from consumer behavior researchers over the years. Understanding consumer decision-making styles is becoming more significant due to its inextricable relationship with shopping behavior. However, despite the rapid growth of online shopping, no study regarding online decision-making styles has been conducted, whereas many studies have attempted to test decision-making styles in the context of offline shopping (Hafstrom, Chae, & Chang, 1992; Durvasula, Lysonski, & Andrews, 1993; Bakewell & Mitchell, 2003; Mitchell & Walsh, 2004; Tai, 2005).

Previous studies considered decision-making styles as a personality trait which has a lasting effect on consumer decision making (Sproles & Kendall, 1986). Recently, some studies suggested that decision-making styles are influenced by product type (Bauer et al., 2006) and supported that decision-making styles are not consistent when used across contexts and decision situations (Scott & Bruce, 1995).

This dissertation argues that, although extensive effort has been made in investigating consumer decision making styles, relatively less attention has been invested in conceptualizations of decision-making styles and has failed to identify whether consumer decision-making styles are truly personality trait based or context-dependent. Taking this into account, this investigates whether decision-making styles are influenced by contextual factors. Consumer researchers acknowledge that context is

not only a legitimate source of information for consumer behavior, but also essential to incorporate in theory building and empirical research (Wagner-Tsukamoto & Tadajewski, 2006).

To clearly conceptualize decision-making styles, this challenges a theory that decision-making styles are personality trait based. Investigating whether consumer decision-making styles depend on context effects will contribute 1) to a good basis for further comparative work related to decision-making styles; 2) to the reevaluation of shortcomings of concepts and measurements which have been used in previous studies; 3) to the extension of our knowledge regarding consumer decision-making styles; and (4) to providing a foundation and a stepping-stone for subsequent research to further investigate whether or not decision-making styles are personality traits.

A Practical Point of View

This argues that consumer decision-making styles are contingent on contextual influences and are not personality trait based. Given that online retailing has experienced tremendous growth, this is important in some practical ways: 1) it is useful for customer personalization since e-retailers and e-marketers can effectively tailor to consumers' needs and preferences; 2) it is useful for positioning or advertising their products to intrigue consumers; 3) it is necessary for improving strategic marketing activities and effective communication to support consumer decisions; 4) e-retailers can make adequate strategic, technological, and marketing decisions to increase customer satisfaction; 5) online shopping typologies or classification schemes provide the basis;

and 6) online marketers can realize that the needs of the individual decision makers can be flexible across context factors.

Definition of Terms

- Decision-Making Style: an individual habitual pattern that determines a consumer's approach to making decisions when confronted in a specific decision-context.

- Online Decision-Making Style: an individual habit-based propensity to react in a certain way in an online shopping context.

- Personality Trait: a relatively enduring, characteristic in a person that influences consumer behavior.

- Online Shopping: an activity in which consumers make a transaction to purchase products or services offered by online stores.

- Offline Shopping: an activity in which consumers make a transaction to purchase products or services offered by stores.

- Involvement: a person's perceived relevance of an object based on inherent interests, needs and values.

- Online Travel Agency (OTA): an e-service vender that sells travel related products from a number of tourism providers with which they have formed partnerships.

- Loyalty: a customer's favorable attitude and repeat buying behavior on a particular Web site.

Organization of the Dissertation

This examines three issues related to consumer online decision-making styles using a decision-making style instrument. The issues are developed in the next three chapters and are written as self-contained papers with their own introduction, theoretical background, methodology, and expected results.

The first paper (Chapter II) examines consumers' updated decision-making styles, and compares consumers' online and offline decision-making styles to identify whether consumer decision-making styles are dependent on channel type as a context factor.

The second paper (Chapter III) deals with whether decision-making styles are influenced by product type to determine if decision-making styles vary with a different type of product context. Involvement was also used as a factor which affects the relationship between product type and consumer online decision-making styles to examine any interaction effects.

The third paper (Chapter IV) investigates whether online travel shoppers' decision-making styles impact their loyalty toward OTAs. This study assumes that some decision-making styles are positively related to loyalty while others are negatively related to loyalty in the context of online tourism booking sites.

CHAPTER II

A COMPARISON OF OFFLINE AND ONLINE CONSUMER DECISION-MAKING STYLES

Introduction

Identifying individual consumer decision-making styles has received a significant amount of attention from consumer behavior researchers and practitioners over the years due to the inextricable links to consumers' purchase behavior (Mitchell & Bates, 1998).   In particular, examining decision-making styles is important so that marketers and retailers are in a better position to understand the preferences and needs of different groups of consumers (Tai, 2005). Several studies have investigated consumer decision-making styles and revealed their importance to consumer behavior research (Hafstrom, Chae, & Chang, 1992; Durvasula et al., 1993; Lysonski, Durvasula, & Zotos, 1996; Mitchell & Bates, 1998; Fan & Xiao, 1998; Kamaruddin & Mokhlis, 2003; Bakewell & Mitchell, 2003; Mitchell & Walsh, 2004; Bauer et al., 2006). However, whereas substantial theorizing and empirical research has focused on traditional consumer decision-making styles, no attention has been paid to online consumer decision-making styles.

According to Forrester Research (2006), online spending in the United States is currently at more than $130 billion and the figure is expected to approach $300 billion

by 2011. The online shopping population in the United States is rapidly increasing because consumers have already realized the benefits of online shopping, such as saving time and energy, convenience, competitive pricing, broader selection, and greater access to information (Verhoef & Langerak, 2001). As a result, the proliferation of commercial Web sites providing consumers with a new medium to purchase products and services has experienced exponential growth and increased the importance of understanding the factors that influence consumers to shop online. Online shopping is expected to accelerate even further due to the rapid growth of e-commerce and a greater emphasis on efficient use of time (Kotkin, 1998). Thus, concomitant with the rapid growth of the Internet, consumers' shopping activities on the Internet are becoming more significant every year and consumers' shopping behavior online is becoming a major research topic.

Numerous studies have investigated online consumer behavior and have pointed out that the milieus of online channels and offline channels are different (Kim, 2002; Vijayasarathy, 2002; Lokken, Cross, Halbert, Lindsey, Derby, & Stanford, 2003; Card et al., 2003; Senecal, Kalczynski, & Nantel, 2005; Huang & Oppewal, 2006; Koo, 2006). Previous studies showed that channel characteristics influence the consumer decision making process and purchasing behavior (Vijayasarathy, 2002; Card et al., 2003). For example, online stores do not offer a safe shopping environment compared to offline stores, but online shoppers feel they have more convenience and easier price comparison than offline shoppers (Kau & Tang, 2003). In addition, online shopping fulfills several consumer needs more effectively and efficiently than conventional shopping because consumers can not only easily compare product features, availability, and price, but also

can browse the entire product assortment with minimal effort, minimal inconvenience and limited time investment (Chen & Leteney, 2000; Grewal, Iyer, & Levy, 2002).

Despite the fact that most studies reveal that consumer purchase behavior is different online compared to offline due to different channel characteristics, little research is focused on decision-making styles of consumers when shopping online. Decision-making styles are generally viewed as a relatively enduring consumer personality, analogous to the more general concept of personality in psychology (Sproles & Kendall, 1986; Walsh et al., 2001a;Walsh et al., 2001b; Hiu, Siu, Wang, & Chang, 2001; Tai, 2005). However, some researchers have proposed that decision-making styles are not personality trait based, but an individual response pattern which is determined by the decision-making situation (Scott & Bruce, 1995). Despite that argument, few studies investigated whether or not decision-making styles are independent or context-dependent. Taking this into consideration, this study attempts to investigate whether shopping-channel context influences consumer decision-making styles.

Despite the considerable contribution of previous research to understanding decision-making styles, exists decision-making style studies have been limited in two main ways: (1) limited efforts to understand new consumers' decision making styles; and, (2) a lack of understanding of decision-making styles in on online channel context. Accordingly, the objective of this study is: (1) to explore new types of decision-making styles which better represent differences between current consumer needs and

preferences; and (2) to investigate consumer online and offline decision-making styles to identify whether channel type influences decision-making styles.

With the increasing importance of online sales and the growing number of online shoppers, investigating consumer decision-making styles within an online context will benefit current practice in that 1) both on and offline marketers and retailers can understand consumers' preferences and needs regarding shopping choices; and 2) consumer behavior researchers can gain a more profound understanding of consumers' shopping styles by investigating and comparing decision-making styles across channel characteristics. Thus, this study will contribute to the stream of research that attempts to test the generalisability of the theory of decision-making styles.

Theoretical Background

Decision-Making Styles

Decision-making styles are mainly viewed as a patterned, mental, and cognitive orientation towards shopping and purchasing, which constantly dominates the consumer's choice, resulting in a relatively-enduring consumer personality (Sproles & Kendall, 1986). Some claim that it is the learned habitual response pattern exhibited by an individual when confronted with a decision situation (Scott & Bruce, 1995). The consumer literature suggests that decision-making styles can be categorized into three main approaches: the consumer typology approach (Darden & Ashton, 1974; Moschis, 1976), the psychographics/lifestyle approach (Lastovicka, 1982; Wells, 1975), and the

consumer characteristics approach (Sproles & Kendall, 1986; Sproles & Sproles, 1990). The consumer typology approach attempts to define specific aspects of consumers' shopping motives and attitudes by classifying consumers into a limited number of types, which differ from each other. On the other hand, the consumer characteristics approach focuses on cognitive and affective orientations that relate specifically to consumer decision-making. Psychographic research postulates that a consumer's activity, interest and opinion statements can be very effective in measuring consumer personalities and predicting consumer behavior.

Among these three approaches, the consumer characteristics approach has been considered to be the most powerful and explanatory since it focuses on the mental orientation of consumers in making decisions. This type of approach assumes that consumers follow certain decision-making traits to handle their shopping tasks. Traits that have been identified are, for instance, quality consciousness (Darden & Ashton, 1974) or brand and store loyalty (Moschis, 1976). Sproles and Kendal (1986) combined these and additional traits to develop a consumer decision-making styles list, the so-called consumer styles inventory (CSI).

The CSI was developed based on the assumption that consumer decision-making behavior can be explained by eight central decision-making styles. The eight consumer decision-making style dimensions are: Perfectionistic, high-quality conscious consumer, Brand conscious consumer, Novelty, variety conscious consumer, Price, value conscious consumer, Recreational, hedonistic consumer, Impulsive, careless consumer, Confused by over-choice consumer, and Habitual, brand- loyal consumer.

Although there are some issues regarding the validity of the CSI, it is the most tested instrument representing the first systematic attempt to create a robust methodology for measuring shopping orientations and behavior (Hafstrom et al., 1992; Lysonski et al., 1996; Mitchell & Bates, 1998; Wickliffe, 2004). This study aims to measure offline and online decision-making styles of U.S. residents and adopting the CSI will be the best choice to measure it since CSI was supported when it was applied in the U.S. In this study, the CSI are considered as "existing styles" and the newly suggested styles are considered as "proposed additional styles".

Existing styles (CSI)

1. Perfectionistic, high-quality conscious consumer

This trait is characterized by a consumer who searches the very best quality in products. Those consumers higher in perfectionism could also be expected to shop more carefully, more systemically, or by comparison. Often, they are not satisfied with the good enough products.

2. Brand conscious consumer

Those scoring high on this factor would be expected to buy expensive, well-known national brands, believing that the higher the price of a product, the better the quality. They also prefer best-selling, advertised brands. The consumers how display this style are likely to display some level of fashion consciousness.

3. Novelty, variety conscious consumer

This factor characterizes novelty seekers, who find seeking out new things pleasurable. They are likely to gain excitement and pleasure from seeking out new things. Also, keeping up to date with styles, and being in style are important aspects of novelty and variety conscious consumers.

4. Price, value conscious consumer

This factor measures price and value for money consciousness. People scoring high on this trait would be particularly conscious of sale prices and lower prices in general and, more importantly, are concerned with getting the best value for their money. These consumers are likely to be comparison shoppers.

5. Recreational, hedonistic consumer

Consumers scoring high on this factor view shopping as recreation and entertainment. These consumers find shopping a pleasant activity and shop just for the fun of it. In previous research, this style was an opposite of the "shopping avider" or "time savor" trait.

6. Impulsive, careless consumer

This trait describes people who tend to buy on the spur of the moment and to appear unconcerned about how much they spend or about getting best buys. That is, these consumers do not plan their shopping.

7. Confused by over-choice consumer

This trait characterizes consumers who perceive that there are too many brands and stores from which to choose and who likely experience information overload in the market. High scores on this characteristic perceive many brands and stores from which to and have difficulty making choices.

8. Habitual, brand- loyal consumer

People who have high scores on this factor have favorite brands and stores and have formed habits in choosing these repetitively. Habitual behavior is well-known aspect of consumer decision-making.

However, this study argues that the CSI is not enough to better understand new types of consumer shopping because the CSI (1986) was developed in the mid-1980s and the most following up studies have focused more on retesting its validity rather than reinvestigating and identifying new types of consumer styles. In addition, technological advance influence not only consumer shopping environments, but also their expectation and demand regarding their shopping experience. Thus, taking this into consideration, in this study, three decision-making styles which have not been previously identified in the literature are proposed based on the relevant literature review. The newly proposed styles are Fulfillment conscious consumer, Incentive conscious consumer, and

Recommendation conscious consumer. This study suggests that consumer have an increased need for these three dimensions.

Proposed additional styles

1. Fulfillment conscious consumer

Fulfillment incorporates accuracy of service promises, having products in stock and delivering the product within the promised time (Zeithaml, Parasuraman, & Malhotra, 2002; Wang, 2003; Wolfinbarger & Gilly, 2003; Field, Heim, & Sinha, 2004). In reality, since service providers often have difficulty in controlling delivery quality as well as timing, fulfillment of product and service orders is a particularly troublesome area for not only online channels but also traditional channels. In particular, since in the case of online stores there is little real interaction between online consumers and the service provider, the consumer can be left feeling frustrated with the service fulfillment that they received. Thus, fulfillment is considered an important factor for online shopping.

Similarly, Parasuraman, Zeithaml, and Berry (1988) already stated the importance of fulfillment in traditional stores as one aspect of service quality. This study suggests that as technology advances, more and more consumers' expectations regarding fulfillment will play an important role in influencing shopping choices. This factor characterizes consumers who are conscious of the accuracy of service promises, order tracking, and information provided about transactions.

2. Incentive conscious consumer

Many studies already pointed out that consumers are price sensitive, which has an effect on their decision-making (Kocas, 2003; Erdem, Mayhew, & Sun, 2001). In this study, the consumers who are likely to be more conscious not only of coupons, but also mileage programs, free gifts, cash back, sweepstakes, etc. are considered incentive consciousness shoppers.

This study suggests that improved technology has allowed incentives such as e-coupons, e-sweepstakes, etc., to become more available, and as a result, individuals who are concerned with incentives are increasing, suggesting that this aspect needs to be considered separately from price consciousness. Recent studies show that coupon use is common among all ages of adults and it is not just the poorest of consumers who use them (Ethridge & Ridder, 2005). Coupons are clearly an important promotional vehicle for frequently purchased consumer products and have thus been studied quite extensively in the marketing literature. Many studies have also shown that coupon redemption has a significant impact on consumers' decision-making processes (e.g., Mela, Gupta, & Lehmann, 1997; Walters & Jamil, 2003). It is expected that the importance of coupons will continue to grow as improved Internet technology becomes widely available and allows coupon usage to become more efficient and targeted (DelVecchio, 2005).

This study argues that there are some people who are concerned with incentives not because they are price conscious, but because they enjoy a feeling that they got a good deal. For example, frequent mileage programs, cash back, and free gifts can give

consumers a feeling of accomplishment. Some shoppers prefer bonus mileage/airline frequent mileage, souvenirs, gifts, coupons and cash rebates and the incentives can be incorporated to reward and encourage consumers. In this study, people scoring high on this factor are considered to be incentive conscious consumer.

3. Recommendation conscious consumer

According to the theory of planned behavior (TPB) (Ajzen, 1991), an individual's behavior can be explained by his or her behavioral intention, which is influenced by subjective norms. Subjective norms refer to an individual's perceptions of other people's opinions on whether or not he or she should perform a particular behavior. Previous study proposed dependent decision-maker, which is characterized by a search for advice and direction from others, as one of career decision-making styles (Harren, 1979). Scott and Bruce (1995) also suggested it as a decision-making style, but it has received little attention from researchers of decision-making styles.

Due to the technology influence, consumers can easily get others opinions and experiences regarding the products and services they are going to buy compared to a few decades ago. This study suggests that there is a certain type of consumer who is more concerned with others' opinions, which affect their shopping behavior. People who have a high score on this factor are more concerned with ideas and opinions of opinion leaders, word-of-mouth (e-WOM), product review, rating systems, friends, etc. In this study, these consumers are considered to be recommendation conscious consumer. This study

extends decision-making styles and further examines it in both the online and offline

context. The proposed eleven decision-making styles are displayed in Figure 2-1.

Perfectionistic, high-quality conscious consumer
Brand conscious consumer
Novelty, variety conscious consumer
Price, value conscious consumer
Recreational, hedonistic consumer
Impulsive, careless consumer
Confused by over-choice consumer
Habitual, brand- loyal consumer
Fulfillment conscious consumer
Incentive conscious consumer
Recommendation conscious consumer

Figure 2-1 Extended Decision-Making Styles

Influence of Context on Decision-Making Styles

Previous studies have found that consumers' shopping behavior is different for online and offline contexts due to the differences in the shopping environment (Vijayasarathy, 2002; Card et al., 2003). For example, many studies pointed out that shoppers experience frustrations and hesitation when they shop online and people browse the online store more for information than for buying online due to the barriers such as purchase failures, security fears, service frustrations, etc. (Cho, Kang, & Cheon, 2006). In addition, while the offline shopping value is mainly determined by product (Zeithaml, 1988), in online retailing settings, not only the product, but also the online store and the Internet channel can contribute to customer value (Keeney, 1999). It implies that the shopper's online decision-making styles might be different.

Despite the rapid growth of online shopping, little research has focused on decision-making styles in the online environment compared to the offline environment. In particular, whether decision-making styles are influenced by channel context has not yet been investigated. A number of studies have tested consumer decision-making styles for shopping in traditional stores. Table 2-1 presents a number of studies that have examined consumer decision-making styles across various cultures and groups from 1986 to 2006. Table 2-2 presents studies that have investigated influences based on non-personal factors. The table shows that, while numerous studies focused on investigating whether decision-making styles are independent of personal factors such as culture or demographics, few studies have attempted to test whether or not decision-making styles are influenced by contextual factors.

Recently, some authors studied whether decision-making styles are influenced by product type and shopping mall context (Bauer et al., 2006; Wesley et al., 2006). Whereas the Bauer et al. study (2006) found that consumer decision-making styles vary across product categories, Wesley, et al. (2006) declared that consumer decision-making styles are independent of the mall shopping context (e.g. shopping in regional versus local area malls). Thus, the relationship between decision-making styles and contextual factors needs to be examined further.

This study argues that, despite the importance of understanding consumer decision-making styles, a major concern, i.e. whether styles are context-dependent, is not addressed in the existing literature on consumer decision-making styles. The main assumption of this study is that consumer decision-making styles are influenced by context, specifically by channel type. To that end, this study investigates consumer decision-making styles in both online and offline contexts. It will help to understand whether decision-making styles are influenced by context factors.

TABLE 2-1

Studies about Personal Factors (Culture, Age, Gender)

Authors	Study	Findings	Survey instrument/Sample
Studies about Culture			
Sproles and Kendall (1986)	Presents a method for measuring characteristics of consumer decision-making styles	Consumer style inventory (CSI) and profile of consumer style is useful for consumer-interest professionals. Further application and validation of the CSI and PCS across population is encouraged.	501 high school students in US
Sproles and Sproles (1990)	Explores the relationships between individuals' learning styles and their consumer decision-making styles	Statistically significant relationships are found between learning and decision-making characteristics	501 high school students
Hafstrom, Chae, and Chung (1992)	Identify decision-making styles of young consumers in Korea and to find if decision-making styles are similar for Korean and U.S. consumers	There was indication of the generality of several consumer decision-making styles of young U.S. and Korean consumers. The CSI has elements of construct validity and has potential use across international populations	Sproles and Kendall (1986) 310 college students in Korea
Lysonski, Durvasula, and Zotos (1996)	Investigate the decision-making profiles of consumers in four diverse countries	CSI requires additional psychometric work before it can be applied to other countries, particularly those that are less developed.	Sproles and Kendall (1986) 486 Undergraduate students from Greece, India, New Zealand, and USA
Mitchell and Bates (1998)	Examines the generalisabity of Sproles and Kendall's (1986) CSI in an extension of their work in the UK	Most of the original US traits were found in the UK, with the addition of new store-loyalty and time-energy saving traits. The CSI is sensitive enough to be able to assess cultural differences and produce sensible results.	Sproles and Kendall (1986) 401 undergraduate students in UK
Fan and Xiao (1998)	Examine dimensions and profiles of consumer decision-making styles of Chinese compared to other nations (American and Korean)	The consumer decision-making styles (brand, time, quality, price consciousness, and information utilization) are similar in the three countries but maturity of the consumer market may impact the differences in consumer decision-making styles	Sproles and Kendall (1986) 271 undergraduate students in China

TABLE 2-1 (Continued)

Authors	Study	Findings	Survey instrument/Subject
Mau (2000)	Examine cultural relevance of career decision-making style and career decision-making self-efficacy	Career decision-making styles have differential impacts on career decision-making self-efficacy as a function of nationality and gender.	ACDM (Harren, 1978) 540 undergraduate Americans and 1026 Taiwanese
Walsh, Hennig-Thurau, Mitchell, and Wiedman (2001)	Examine the usefulness of the CSI for market segmentation using a non-students sample to improve the generalisability of the results	A seven-dimensional structure was found to be the most appropriate representation of a German decision-making style. The current CSI seems unable to measure consumer decision-making characteristics effectively in all countries.	Sproles and Kendall (1986) 455 German consumers
		Studies about Culture	
Walsh, Wayne-Mitchell, and Hennig-Thurau (2001)	Test the generalizability of consumer decision-making styles in different countries and with non-student German shoppers.	The eight factor model could not be confirmed but supported six factors of them.	Sproles and Kendall (1986) 455 German male and female shoppers (eighteen and older)
Hiu, Siu, Wang, and Chang (2001)	Investigates Chinese consumers' decision-making styles	Five decision-making styles are valid and reliable in Chinese culture (perfectionist, novelty-fashion conscious, recreational, price conscious, and confused by over choice.	Sproles and Kendall (1986) 381 adult consumer in China
Kamaruddin and Mokhlis (2003)	Investigate how the process of consumer socialization will determine adolescents' decision-making styles	Significant relationships were found between social structural factors and socialization process, suggesting that the influence of socialization agents on adolescents may vary according to certain demographic characteristics	Sproles and Kendall (1986) 934 Chinese, Malays, and Indians adolescents
Yi and Park (2003)	Explore cultural differences in decision-making styles of college students from five countries.	Culture may not be a stagnant phenomenon, and more variables should be explored to accurately evaluate cultural differences in decision-making styles.	Instrument was newly developed 815 college students of five countries
Mitchell and Walsh (2004)	Examine the validity of an instrument designed to measure decision-making styles and identify decision-making styles of German male and female consumers	Five new male factors, namely satisfying, enjoyment-variety seeking, fashion-sale seeking, time restricted and economy seeking. The CSI has constructed validity for females, but appears to be less valid for males.	Sproles and Kendall (1986) 358 German shoppers

TABLE 2-1 (Continued)

Authors	Study	Findings	Survey instrument/Subject
Wickliffe (2004)	Examine the psychometric properties of a popular instrument used to measure consumer decision-making styles. The findings of this study were compared to previous studies	The instrument is not a reliable or valid measure of decision-making styles in both Korea and the United States. New constructs (Confused impulsive consumer) were identified that were in contrast with previous studies.	Sproles and Kendall (1986) 126 American factory workers and students 156 Korean factory workers and students
Spicer and Sadler-Smith (2005)	Examine the psychometric properties and construct validity of the general decision making styles (GDMS)questionnaire in two UK samples	Support the idea from Scott and Bruce's (1995) development of the general decision-making styles (GDMS) instrument. No relationships with gender or year of study were observed. (rational, intuitive, dependent, avoidant, and spontaneous)	GDMS instrument (Scott and Bruce, 1995) Each of 200 undergraduates at two different university in UK
Tai (2005)	Generate and create a typology of the shopping style dimensions of working female consumers between the ages of 18 and 44 in Shanghai and Hong Kong	Identified ten shopping style dimensions relevant to the Chinese working females and the four new dimensions which are not found in the CSI include personal style consciousness, environment and health consciousness, reliance on mass media, and convenience and time consciousness.	Sproles and Kendall (1986) 148 Hong Kong 126 Shanghai
Studies about Gender			
Bakewell and Mitchell (2003)	Examine the decision making of adult female generation Y consumers	Shoppers change as a function of their generation membership because of macro environmental influences. Five meaningful and distinctive decision-making groups: recreational quality seekers, recreational discount seekers, trend setting loyal, shopping and fashion uninterested, and confused time/money conserving	Sproles and Kendall (1986) 244 Female undergraduate students in UK
Wesley, LeHew, and Woodside (2006)	How consumers' decision-making styles relate to their shopping mall behavior and their global evaluations of shopping malls	Support the existence of CDM styles among adult mall shoppers in different mall contexts. Gender is a prime antecedent associating with CDM styles. The influence of CDM styles on mall shopping consequences is subtle and indirectly influences activities during mall visits via influencing planned expenditure levels. CDM styles associate substantially with visitor satisfaction and with visiting shopping malls.	Sproles and Kendall (1986) 527 adult consumer in US

TABLE 2-1 (Continued)

Authors	Study	Findings	Survey instrument/Subject
Spicer and Sadler-Smith (2005)	Examine the psychometric properties and construct validity of the general decision making styles (GDMS) questionnaire in two UK samples	Support the idea from Scott and Bruce's (1995) development of the general decision-making styles (GDMS) instrument. No relationships with gender or year of study were observed.	GDMS instrument (Scott and Bruce, 1995) Each of 200 undergraduates at two different university in UK
Studies about Other Factors (such as socialization agents)			
Shim (1996)	Examine influence of socialization agents on adolescent consumer decision making styles	Influence of socialization agents (peers, parents, printed media, TV commercials and consumer education) clearly played an important role in influencing adolescent consumer decision-making styles	Sproles and Kendall (1986) 1954 from 29 high schools
Thunholm (2004)	Explore the relations between individual decision-making styles as measured by GDMS test and some mental abilities theoretically related to decision-making	Decision-making style is not only reflective of habits and thinking practices as proposed in earlier research. Decision-making style also involves basic self-evaluation and the general ability to initiate and maintain intentions (i.e. self-regulation)	GDMS instrument (Scott and Bruce, 1995) 206 Swedish military officers
Loo (2000)	Examine the psychometric properties of Scott and Bruce's instrument	The item and scale analysis support the construct validity of the Scott and Bruce's work	GDMS instrument (Scott and Bruce, 1995) 223 undergraduate students
Burns (2006)	To relate individuals' consumer decision-making styles with their attitudes toward consumer free-riding activity	Individuals with differing decision-making styles possess varying attitudes toward consumer free riding. The origins of attitudes toward consumer free rising may be multi-faceted	Sproles and Kendall (1986) 1008 undergraduate students
Galotti, Ciner, Altenbaumer, Geerts, Rupp, and Woulfe (2006)	Investigate the relationships among individual difference variables, cognitive measures of performance; and affective reactions to, and descriptive ratings of, the decision-making process	There were significant relationships found between individual differences measures and affective reactions to, or descriptive ratings of, the decision-making process.	GDMS instrument (Scott and Bruce, 1995) 132 students

TABLE 2-2

Studies about Non-Personal Factors (Product Type and Shopping Malls)

Authors	Study	Findings	Survey instrument/Subject
Studies about Context			
Scott and Bruce (1995)	To develop a conceptually consistent and psychometrically sound measure of decision-making style	The development of a measure of decision-making style that can be used across contexts and decision situations. Four decision styles postulated a priori from the literature emerged as independent styles in the military officer sample- rational, intuitive, dependent, avoidant. In addition, a fifth style emerged, which was named spontaneous.	Bruce (1991) Sample 1-1441 male military officers, Sample 2- 84 MBA students, Sample 3- 229 upper-level undergraduate business students, Sample 4- 189 engineers and technicians
Wesley, LeHew, and Woodside (2006)	How consumers' decision-making styles relate to their shopping mall behavior and their global evaluations of shopping malls	Support the existence of CDM styles among adult mall shoppers in different mall contexts. The findings of this study showed that CDM styles are found to be independent in structure to different shopping contexts.	Sproles and Kendall (1986) 527 adult consumer in US
Bauer, Sauer, and Becker (2006)	Analyze the relationship between CDMS and different kinds of products	Demonstrate that there is a relationship between products and consumer decision-making styles (CDMS). Also CDMS are governed by consumers' perceived product involvement.	Sproles and Kendall (1986) 120 British 121 German undergraduate students

Online Shopping

Many previous studies have pointed out that an online store presents a fundamentally different environment for retailing activities compared to a traditional store (Hoffman & Novak, 1996; Vijayasarathy, 2002; Card et al., 2003). It has several key aspects that are notably different from an offline store. First, an online store can overcome time and spatial barriers and provide greater customer reach (Vijayasarathy, 2004). Second, consumers can compare products and prices across sites and can save more time (Gupta, Su, & Walter, 2004). Third, an online store has an advantage regarding the amount of product information, ease of use, speed and convenience. Fourth, an online store has more disadvantages regarding facilitation of payment and refunds, reliability, customer service and ability to cancel orders. Fifth, consumers become highly sensitive to issues of privacy and security when they shop online due to the lack of security and physical contact of an online store (Jarvenpaa & Todd, 1996; Thom, 2000). Further, Eroglo, Machleit, & Davis (2001) defined the online store atmosphere as lacking sensory appeals derived from touch, smell, and taste.

For online shopping, many researchers described that convenience has been the most cited shopping motivation or benefit (Jarvenpaa & Todd, 1997; Shim, 1998; Kau et al., 2003) but some argued that online shoppers are looking for value rather than for convenience (Edgecliffe-Johnson, Grande, & Harney, 2002). Rohm and Swaminathan (2004) found that there are four types of consumers based on motivations for online shopping; convenience shoppers (motivated by convenience), variety seekers (motivated by variety seeking across retail alternatives and product types and brands), balanced

buyers (moderately motivated by convenience and variety seeking), and store-oriented

shoppers (immediate possession and social interaction). The authors described that

variety seeking and convenience were found to be significant factors in the online, but

not the offline setting, while recreational motives were significant in the offline, but not

the online context. Donthu (1999) also previously suggested that Internet shoppers seek

more convenience and innovation than non-online shoppers.

Accordingly, this study assumes that the different retail environment and the

different atmosphere present online can significantly influence the emotions and intrinsic

motivation of shoppers (Venkatesh, 2002), thereby affecting decision-making styles.

Hypotheses

This study aims at developing an updated inventory of consumer online

decision-making styles and seeks to compares online with traditional shopping styles to

understand whether consumer decision-making styles endure regardless of context.

Based on the previous discussions, this study assumes that there is a significant

difference between the online decision-making styles and offline decision-making styles

of a consumer. In particular, this study hypothesize that some decision-making styles

are more obvious offline whereas some decision-making styles are more prominent

online.

The following decision-making styles are assumed to be more pronounced for

online shopping: First, online shoppers are more brand conscious about Web sites due to

the perceived risk of accessing an unknown site. Second, the novelty-variety consciousness style is expected to be more pronounced because variety seeking was found to be a significant factor for online consumers. Third, consumers are expected to be more price conscious because looking for value has been the most cited online shopping motivation. Fourth, online shopping leads consumers to being more confused by over choice. There are often a myriad of options, making comparison shopping for products difficult in online shopping. Fifth, reliance on the habitual decision-making style is expected to be greater. If consumers find a Web site and have a good experience, they might prefer to return to the same Web site to reduce the perceived risk. Sixth, consumers are expected to be more recommendation conscious because they can easily obtain otherss diverse opinions and experiences in electronic form, due to the technological advances. Seventh, fulfillment consciousness style is more obvious in online shopping. Since online stores require little real interaction between online consumers and the service provider, the consumer remains very fulfillment conscious until they receive the service the service provider promised.

In contrast, the following decision-making styles are assumed to be more prominent for offline shopping: First, the perfectionism consciousness style is expected to be more prominent. Since consumers are able to touch, smell, and feel before they purchase products, as compared to online shopping, they are more able to consider the highest quality in products. Second, the same is expected for impulsive shopping. In offline shopping, since consumers can be easily attracted by the shape, color, and design of products, as compared to online, it is assumed that they might become more impulsive

shoppers. Third, this study assumes that offline consumers are more recreation seeking because recreational motives are significant in offline shopping. Fourth, consumers can be assumed to be more incentive conscious in the context of offline shopping. Although improved technology has allowed incentives such as e-coupons, e-sweepstakes, etc., to become more available online, coupon use is more sophisticated and effective offline stores rather than online stores. Taking all this into consideration, this study proposes the following hypotheses:

H1. Consumers are more perfectionism conscious offline.

H2. Consumers are more brand conscious online.

H3. Consumers are more novelty/variety conscious online.

H4. Consumers are more price conscious online.

H5. Consumers are more impulsive/careless offline.

H6. Consumers are more confused by over-choice online.

H7. Consumers are more recreational/hedonic conscious offline.

H8. Consumers are more habitual/store loyal conscious online.

H9. Consumers are more incentive conscious offline.

H10. Consumers are more recommendation conscious online.

H11. Consumers are more fulfillment conscious online.

Methodology

Data for the study was gathered from the beginning of April to the middle of April 2007 at a large university located in the Southwest United States using a self-administered survey questionnaire. The survey measured individuals' online and offline decision-making styles. After the initial version of the questionnaire was developed, it was distributed to thirty five undergraduate students who pretested the instrument. The pretest found that the scales used in the survey demonstrated reasonable levels of reliability and internal consistency. A final survey instrument was developed based on comments collected during the pretest.

Since this study assumed that respondent's decision-making styles are different across products (Bauer et al., 2006), a specific purchase context (books) was assigned in this survey. A book was chosen as the product for this study because the sample consisted primarily of students and books are one of the best-selling products online (Rosen & Howard, 2000). This ensured that the purchase context was realistic and relevant to the sample used for this study. Each subject was asked about their offline as well as online decision-making styles when they shopped for books. Due to potential order effects, two types of questionnaires were designed. One questionnaire asked 'online' decision-making styles first and then questions regarding 'offline' decision-making styles followed. The other questionnaire had the opposite order. An equal amount of each type of questionnaire was randomly distributed to the subjects.

Seven course instructors were personally contacted and asked to distribute the final questionnaires to undergraduate students in their classes. In this study, the sample

consisted of undergraduate students who had previously purchased books, such as novels and non-fiction, both online and offline. In the questionnaire, participants who had not previously gone online to purchase a book were instructed to skip the questions about online decision-making styles. As a token of appreciation, the students were eligible to win a drawing for a $100 cash prize, by voluntarily entering their email address at a prepared sheet in end of the survey. The data collection effort resulted in a sample of 355 respondents (see Appendix A).

Survey Instrument

The survey instrument that was used for this study is Sproles and Kendall's (1986) 'Consumer Styles Inventory' (CSI). However, the 5-item Perfectionism/High quality consciousness style, the 4-item Brand consciousness style, the 3-item Novelty and Variety consciousness style, the 4-item Recreational and Hedonistic, the 6-item Price value consciousness style, 5-item Impulsiveness style, the 4-item Confused by over-choice style, and the 4-item Habitual and Brand/store loyal style were adopted to fit the book purchasing context.

Items for the three additional decision-making styles were adapted from the relevant literature. The 4-item Fulfillment consciousness scale was derived from Wolfinbarger and Gilly (2003), the 3-item Incentive consciousness scale was adapted from Vermeir and Kenhove (2005), and the 4-item Recommendation consciousness scale was developed based on Scott and Bruce (1995). All 11 items were modified to fit the context of this study.

Thus, 47 items for each context (online and offline) were constructed to examine whether respondents' consumer decision-making styles are influenced by channel type. The decision-making styles were measured by using seven-point Likert scales with responses ranging from (1) strongly disagree to (7) strongly agree. The survey further included demographic questions on gender, age, and level of Internet experience.

Analysis

The reliability of the scales was measured using Cronbach's Alpha. The uni-dimensionality of the constructs was also tested using factor analyses with principal components as the extraction method and Varimax rotation. Stability and discriminant validity of the eleven-factor structure were then assessed using the criterion suggested by Fornell and Larcher (1981), who contend that for discriminant validity to exist between two constructs, the average variance extracted of both constructs must be greater than the variance shared by the two. Repeated measures MANOVA was used to check whether significant difference exist overall decision-makings styles in terms of channel context. Since this data was collected for the same subject for two different contexts (online vs. offline), dependent/paired-sample T-test was also recommended (Tabachnick & Fidell, 2001) to test the hypotheses that there is significant difference between each online and offline decision-making styles.

Results

Profile of Sample

The average age of the respondents was 22, with ages ranging from 19 to 37 years. A total of 53 percent of the respondents were male and 47 percent were female. Almost all (95%) subjects indicated they had either intermediate or advanced Internet use skills. Table 2-3 provides a summary description of the survey respondents' characteristics.

TABLE 2-3

Profile of Respondents (Study 1)

Number of Respondents	355
Age of Respondents	19-22 (52%), 23-27 (43%), 28-37 (5%)
Gender	Male (53%), Female (47%)
Internet Use Skills	Advanced (57%), Intermediate (39%), Beginner (4%)

Evaluation of Scales

<u>Offline Decision-Making Styles</u>

Cronbach Alpha scores were computed to assess the reliability of the constructs. The Alpha scores ranged from 0.77 to 0.94, thus indicating that the reliability was very high (see Table 2-4). Factor analysis using principal components and Varimax rotation

was used to evaluate overlap between the scales and to test whether the constructs were also uni-dimensional. Exploratory Factor Analysis (EFA) was used to determine how many components were extracted that has an Eigenvalue of 1 or more. The results showed that total 11 components recorded Eigenvalues above 1 and these 11 components explain a total of 75.97 percent of the variance. These 11 factors clearly correspond to the 11 theoretical dimensions. Tabachnick and Fidell (2001) recommend that the correlation matrix should show at least some correlations of $r = .3$ or greater. In this study correlation coefficients were .6 and above. Thus, the results confirmed the expected factor structure (see Appendix B). Next, factor analysis was run for each theoretical dimension to test the uni-dimensionality of the scales. Table 2-4 shows that only one factor was extracted, that the factor loadings were all higher than 0.50, and that the variance explained was greater than 50 percent for each of the scales. This confirmed that the constructs were uni-dimensional.

TABLE 2-4

Measurement Properties of Scales of Offline Decision-Making Styles

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Price-Value Conscious Consumer	**5.19**	**1.26**		**4.21**	**70.23%**	**0.91**
I look carefully to find the best value for my money.	5.28	1.45	.84			
I carefully watch how much I spend.	5.25	1.44	.86			
I am conscious about my economic condition when shopping.	5.23	1.45	.84			
I always buy books that are useful to me and are of reasonable price.	5.22	1.49	.81			
I am willing to spend time to compare prices among shops in order to buy some lower priced books.	4.93	1.81	.80			
I buy books with the best value for my money.	5.24	1.45	.88			
Perfectionistic Consumer	**4.46**	**1.44**		**4.03**	**81.59%**	**0.94**
I make a special effort to choose the very best quality.	4.37	1.69	.91			
In general, I usually try to buy the best overall quality.	4.49	1.63	.90			
When purchasing books, I try to get the very best or perfect choice.	4.64	1.48	.87			
Getting very good quality is very important to me.	4.45	1.67	.92			
My standards and expectations for books I buy are very high.	4.37	1.59	.86			
Fulfillment Conscious Consumer	**4.76**	**1.28**		**3.67**	**73.55%**	**0.91**
When I shop, I am concerned about whether the return policy at the store is reasonable.	4.40	1.54	.79			
I am concerned about whether stores will have the product in stock.	4.94	1.35	.82			
I am concerned about whether transactions at the store are error-free.	4.86	1.49	.89			
I am concerned about whether transactions at the store are secure.	4.89	1.53	.89			
I am concerned about whether returning items is relatively easy.	4.71	1.60	.89			
Brand Conscious Consumer	**4.04**	**1.28**		**3.03**	**75.93%**	**0.89**
The most advertised stores are usually very good choices.	4.22	1.41	.82			
I prefer buying books from the best selling stores.	4.15	1.52	.92			

TABLE 2-4 (Continued)

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Nice and specialty stores offer me the best books.	3.64	1.41	.85			
Well-known branded stores are best for me.	4.13	1.56	.90			
Confused by Over-Choice Consumer	**3.24**	**1.18**		**3.02**	**75.70%**	**0.89**
There are so many stores to choose from that I often feel confused.	3.19	1.42	.88			
Sometimes it's hard to choose which stores to shop.	3.36	1.36	.87			
All the information I get on different books confuses me.	3.18	1.35	.91			
The more I learn about books, the harder it is to choose the best.	3.17	1.35	.83			
Recreational Shopping Conscious Consumer	**4.20**	**1.48**		**3.04**	**76.23%**	**0.89**
Shopping is one of the enjoyable activities in my life.	4.10	1.70	.93			
Shopping is a pleasant activity for me.	4.39	1.61	.92			
I enjoy shopping just for the fun of it.	4.20	1.77	.93			
I prefer to take my time when shopping.	4.06	1.76	.68			
Recommendation Conscious Consumer	**4.24**	**1.29**		**3.02**	**75.58%**	**0.89**
I use the advice of other people in making my important decisions	4.48	1.44	.82			
I like to have someone steer me in the right direction when I am faced with important decisions	4.20	1.56	.92			
I often need the assistance of other people when making important decisions.	3.78	1.55	.87			
If I have the support of others, it is easier for me to make important decisions.	4.42	1.45	.87			
Impulsive Consumer	**3.92**	**1.49**		**2.95**	**59.02%**	**0.83**
I should plan my shopping more carefully than I do.	4.14	1.42	.67			
I am impulsive when purchasing.	4.12	1.58	.82			
Often I make careless purchases I later wish I had not.	3.61	1.50	.84			
I do not take time to shop for the best buy.	3.80	1.43	.74			
I usually buy without hesitation.	3.82	1.51	.74			
Habitual-Store Loyal Consumer	**4.54**	**1.14**		**2.81**	**70.37%**	**0.86**
I have favorite stores from which I buy over and over.	4.74	1.42	.82			

TABLE 2-4 (Continued)

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Once I find a store I like, I stick with it.	4.69	1.32	.89			
I go to the same store each time I shop.	4.21	1.38	.85			
I regularly buy from the same stores.	4.54	1.35	.80			
Novelty-Variety Conscious Consumer	**4.73**	**1.19**		**2.10**	**70.27%**	**0.77**
It's fun to buy something new and exciting.	4.73	1.49	.88			
I like to try new options	4.59	1.35	.91			
I don't mind buying from stores from which I never bought before	4.87	1.47	.70			
Incentive Conscious Consumer	**4.65**	**1.33**		**2.39**	**78.30%**	**0.86**
When I shop, I am concerned about whether the store provides special offers.	4.51	1.47	.85			
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	4.74	1.56	.91			
I am more attracted to stores that offer incentives.	4.73	1.49	.90			

Stability and discriminant validity of the eleven-factor structure were then assessed using the criterion suggested by Fornell and Larcher (1981), who contend that for discriminant validity to exist between two constructs, the average variance extracted of both constructs must be greater than the variance shared by the two. The results suggest that the identified eleven-factor structure has a high discriminant validity. In all instances, the average extracted variance for each factor was higher than the shared variance between factors (Table 2-5). Overall, the findings indicate that the instrument is robust and reliable.

TABLE 2-5

Discriminant Validity Assessment (Scales of Offline Decision-Making Styles)

	AVE*	Price	Perfec	Fulfill	Brand	Confused	Recreational	Recommend	Impulsive	Habitual	Novelty
Price	.702	-	-	-	-	-	-	-	-	-	-
Perfectionism	.816	.163	-	-	-	-	-	-	-	-	-
Fulfillment	.736	.389	.201	-	-	-	-	-	-	-	-
Brand	.759	-.100	.369	.165	-	-	-	-	-	-	-
Confused	.757	-.035	.075	.095	.198	-	-	-	-	-	-
Recreational	.762	.112	.087	.244	.106	.170	-	-	-	-	-
Recommendation	.756	.176	.102	.301	.211	.327	.218	-	-	-	-
Impulsive	.590	-.369	-.046	-.104	.167	.307	.216	.060	-	-	-
Habitual	.704	.114	.170	.245	.287	.053	.244	.294	.172	-	-
Novelty	.703	.015	.251	.124	.110	.072	.213	.197	.093	.114	-
Incentive	.783	.538	.087	.467	.032	.093	.311	.307	-.156	.223	.206

* The statistics in the second column are the average variance extracted (AVE) for each factor. The remaining statistics represent the correlation coefficient between two factors. Discriminant validity exists between two constructs if the average variance extracted of both constructs is greater than the variance shared by the two (i.e., the correlation coefficient).

Online Decision-Making Styles

Cronbach Alpha scores were computed to assess the reliability of the constructs. The Alpha scores ranged from 0.79 to 0.94, thus indicating that the reliability was high (see Table 2-6). Factor analysis using principal components and Varimax rotation was used to evaluate overlap between the scales and to test whether the constructs were also uni-dimensional. EFA was used to determine how many components were extract that have an Eigenvalue of 1 or more. The results showed that total 11 components recorded Eigenvalues above 1 and these 11 components explain a total of 76.73 percent of the variance. Moreover, the results showed that the 11 factors clearly correspond to the theoretical dimensions. In this study correlation coefficients were .59 and above. Thus, the results confirmed the expected factor structure (see Appendix B). Table 2-6 shows that the factor loadings were all higher than 0.50 and the variance explained was greater than 50 percent for each of the factors. This confirmed that the constructs were uni-dimenisonal.

TABLE 2-6

Measurement Properties of Scales of Online Decision-Making Styles

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Price-Value Conscious Consumer	**5.22**	**1.29**		**4.48**	**74.64%**	**0.93**
I look carefully to find the best value for my money.	5.29	1.51	.85			
I carefully watch how much I spend.	5.34	1.45	.87			
I am conscious about my economic condition when shopping online.	5.22	1.47	.87			
I always buy books that are useful to me and are of reasonable price.	5.24	1.43	.84			
I am willing to spend time to compare prices among Web sites in order to buy some lower priced books.	5.14	2.96	.85			
I buy books with the best value for my money.	5.33	1.44	.91			
Perfectionistic Consumer	**4.22**	**1.42**		**4.00**	**79.86%**	**0.94**
I make a special effort to choose the very best quality.	4.08	1.67	.92			
In general, I usually try to buy the best overall quality.	4.22	1.62	.93			
When purchasing books, I try to get the very best or perfect choice.	4.44	1.55	.83			
Getting very good quality is very important to me.	4.25	1.64	.92			
My standards and expectations for books I buy are very high.	4.01	1.54	.87			
Recommendation Conscious Consumer	**4.17**	**1.35**		**3.31**	**82.81%**	**0.93**
I use the advice of other people in making my important decisions	4.27	1.51	.90			
I like to have someone steer me in the right direction when I am faced with important decisions	4.20	1.49	.95			
I often need the assistance of other people when making important decisions.	3.84	1.46	.89			
If I have the support of others, it is easier for me to make important decisions.	4.36	1.44	.90			
Confused by Over-Choice Consumer	**3.78**	**1.07**		**3.04**	**75.91%**	**0.89**
There are so many Web sites to choose from that I often feel confused.	3.62	1.42	.86			

TABLE 2-6 (Continued)

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Sometimes it's hard to choose which Web sites to shop.	3.89	1.43	.85			
All the information I get on different books confuses me.	3.33	1.38	.91			
The more I learn about books, the harder it is to choose the best.	3.32	1.45	.87			
Brand Conscious Consumer	**4.28**	**1.27**		**3.03**	**75.74%**	**0.89**
The most advertised Web sites are usually very good choices.	4.71	1.49	.83			
I prefer buying books from the best selling Web sites.	4.82	1.37	.91			
Nice and specialty Web sites offer me the best books.	4.48	1.38	.88			
Well-known branded Web sites are best for me.	4.25	1.36	.86			
Recreational Shopping Conscious Consumer	**3.61**	**1.48**		**2.94**	**75.50%**	**0.89**
Online shopping is one of the enjoyable activities in my life.	3.28	1.53	.89			
Online shopping is a pleasant activity for me.	3.62	1.55	.93			
I enjoy online shopping just for the fun of it.	3.53	1.66	.90			
I prefer to take my time when shopping online.	4.01	1.67	.70			
Habitual-Store Loyal Consumer	**4.50**	**1.16**		**2.67**	**66.58%**	**0.83**
I have favorite Web sites from which I buy over and over.	4.71	1.49	.80			
Once I find a Web site I like, I stick with it.	4.82	1.37	.90			
I go to the same Web site each time I shop.	4.48	1.38	.90			
I regularly buy from the same Web sites.	4.25	1.36	.66			
Impulsive Consumer Consumer	**3.62**	**1.41**		**2.87**	**57.42%**	**0.81**
I should plan my shopping more carefully than I do.	3.95	1.34	.71			
I am impulsive when purchasing.	3.76	1.58	.82			
Often I make careless purchases I later wish I had not.	3.32	1.52	.83			
I do not take time to shop for the best buy.	3.51	1.57	.62			
I usually buy without hesitation.	3.55	1.43	.79			
Incentive Conscious Consumer	**4.33**	**1.44**		**2.52**	**84.00%**	**0.91**

TABLE 2-6 (Continued)

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
When I shop online, I am concerned about whether the store provides special offers.	4.18	1.58	.89			
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	4.46	1.59	.93			
I am more attracted to Web sites that offer incentives.	4.48	1.58	.93			
Novelty-Variety Conscious Consumer	**4.09**	**1.26**		**2.11**	**70.27%**	**0.79**
It's fun to buy something new and exciting.	4.49	1.63	.88			
I like to try new options	4.32	1.58	.91			
I don't mind buying from Web sites from which I never bought before	4.05	1.50	.70			
Fulfillment Conscious Consumer	**5.26**	**1.14**		**2.87**	**57.46%**	**0.85**
When I shop online, I am concerned about whether the return policy at the store is reasonable.	4.73	1.56	.65			
I am concerned about whether I get my merchandise quickly.	5.44	2.15	.50			
I am concerned about whether transactions at the site are error-free.	5.49	1.34	.89			
I am concerned about whether transactions at the site are secure.	5.65	1.43	.86			
I am concerned about whether returning items is relatively easy.	5.04	1.54	.82			

TABLE 2-7

Discriminant Validity Assessment (Scales of Online Decision-Making Styles)

	AVE*	Price	Perfection	Recommend	Confused	Brand	Recreational	Habitual	Impulsive	Incentive	Novelty
Price	.746	-	-	-	-	-	-	-	-	-	-
Perfectionism	.799	.293	-	-	-	-	-	-	-	-	-
Recommendation	.828	.129	.137	-	-	-	-	-	-	-	-
Confused	.759	.013	.158	.425	-	-	-	-	-	-	-
Brand	.757	.355	.323	.243	.219	-	-	-	-	-	-
Recreational	.755	.130	.071	.122	.183	.121	-	-	-	-	-
Habitual	.666	.275	.065	.266	.316	.329	.394	-	-	-	-
Impulsive	.574	-.233	.084	.258	.377	.184	.156	.139	-	-	-
Incentive	.840	.441	.124	.303	.203	.188	.388	.259	-.022	-	-
Novelty	.703	.078	.400	.103	.268	.226	.224	.135	.274	.108	-
Fulfillment	.575	.521	.228	.266	.196	.254	.098	.354	-.021	.296	.238

* The statistics in the second column are the average variance extracted (AVE) for each factor. The remaining statistics represent the correlation coefficient between two factors. Discriminant validity exists between two constructs if the average variance extracted of both constructs is greater than the variance shared bythe two (i.e., the correlation coefficient).

Stability and discriminant validity of the six-factor structure were then again assessed using the criterion suggested by Fornell and Larcher (1981). Corresponding to the analyses conducted to evaluate the offline decision-making scales, the results suggest that the identified eleven-factor structure has a high discriminant validity. In all instances, the average extracted variance for each factor was higher than the shared variance between factors (Table 2-7). Overall, the findings indicated again that the instrument is robust and reliable.

Significant Differences between Online and Offline Decision-Making Styles

This study first checked whether an order effect was present. The effect size indicates the 'amount of the total variance in the dependent variable that is predictable from knowledge of the levels of the independent variable' (Tabachnick & Fidell, 2001, p. 52). To check the order effect, ANOVA, which provides one of the most common effect size statistics, was used to check the effect size. The result showed the value of eta squared regarding off and online decision-making styles were between 0.01 and 0.05

(Cohen, 1988) classifies .01 as a small effect, 0.06 as a medium effect and .14 as a large effect). The results confirmed that not much of the variance of the decision-making styles is explained by the order effect. Thus, order effects were not taken into account for the further analyses.

Second, repeated measures MANOVA was performed to see whether overall decision-making styles are different according to channel type. The analysis indicated that there is significant difference between overall online and offline in terms of channel context. Finally, dependent/paired-sample T-test was used to test whether the each consumer decision-making styles are different for channel type. Table 2-8 outlines the result of Paired T-tests.

TABLE 2-8

Paired T-test Comparisons of Offline and Online

Decision-Making Styles	Offline		Online		t	Sig.
	Mean	Std. Dev.	Mean	Std. Dev.		
Perfectionistic ***	4.46	1.44	4.22	1.42	(1, 243) 3.61	p = .000
Brand Conscious***	4.04	1.28	4.28	1.26	(1, 245) -2.59	p= .000
Novelty-Variety Conscious*	4.73	1.19	4.09	1.26	(1, 243) 2.41	p= .016
Price-Value Conscious	5.19	1.26	5.22	1.26	(1, 243) -.770	p = .442
Impulsive**	3.92	1.49	3.62	1.41	(1, 244) 2.69	p = .008
Confused by Over-Choice***	3.24	1.18	3.78	1.07	(1, 245) -6.93	p= .000
Habitual-Store Loyal	4.54	1.14	4.50	1.16	(1, 243) .570	p = .569
Recreational Shopping Conscious ***	4.20	1.48	3.61	1.48	(1, 243) 7.67	p= .000
Incentive Conscious***	4.65	1.33	4.33	1.44	(1, 243) 4.04	p = .000
Recommendation Conscious	4.24	1.29	4.17	1.35	(1, 244) 1.33	p= .186
Fulfillment Conscious***	4.76	1.28	5.26	1.14	(1, 243) -5.58	p= .000

*Note * p<0.05, ** p<0.01, *** p<0.001*

The above findings suggest that consumers have more perfectionism, novelty/variety, recreational/hedonistic, and incentive consciousness styles offline, whereas they have more brand and fulfillment consciousness online. Also, the results reveal that consumers become more impulsive/careless offline while they are more confused by over-choice online.

The overall results indicate that online decision-making styles are influenced by channel type and the proposed seven hypotheses are supported in assumed direction. However, interestingly, The Hypothesis 3 (Consumers are more novelty/variety conscious online) was supported not in assumed direction. One previous study found that online shoppers are more likely to be adventurous in shopping and to seek variety than are traditional shoppers (Choi & Park, 2006). Also, Rohm & Swamianthan (2004) proposed that variety seeking style is one of the main typologies of online shoppers.

TABLE 2-9

Summary of Hypotheses Testing (Study 1)

Hypothesis	Supported	Decision-Making Styles	Prominence
1. Consumers are more perfectionism conscious offline.	**Yes**	Perfectionistic	Offline
2. Consumers are more brand conscious online.	**Yes**	Brand Conscious	**Online**
3. Consumers are more novelty/variety conscious online.	**Yes***	Novelty-Variety Conscious	Offline
4. Consumers are more price conscious online.	No	Price-Value Conscious	
5. Consumers are more impulsive/careless offline.	**Yes**	Impulsive	Offline
6. Consumers are more confused by over-choice online.	**Yes**	Confused by Over-Choice	**Online**
7. Consumers are more recreational/hedonic conscious offline.	**Yes**	Recreational-Hedonistic	Offline
8. Consumers are more habitual /store loyal conscious online.	No	Habitual-Store loyal	
9. Consumers are more incentive conscious online.	**Yes**	Incentive Conscious	Offline
10. Consumers are more recommendation conscious online.	No	Recommendation Conscious	
11. Consumers are more fulfillment conscious online.	**Yes**	Fulfillment Conscious	**Online**
*Supported not in assumed direction			

However, the findings of this study suggest that consumers are more variety seekers offline than online. Since this study measured consumers' decision-making styles when they purchased books online and offline, it is assumed that product type may have influenced their decision-making styles. This study shows that consumers are more variety and novelty conscious offline rather than online, in particular, when shopping for books.

This study also found no difference in terms of price, habitual, recommendation conscious styles regarding channel context. Previous studies have suggested that consumers are more price sensitive online than offline (Edgecliffe-Johnson, Grande, & Harney, 2002). However, the results here show that consumers are highly conscious of price when they shop both offline and online, regardless of channel type. The result could be an artifact of the specific product type or the specific sample used in this study.

Interestingly, the findings of this study also show that consumers are neither habitual shoppers nor conscious of others' recommendations when they shop for books both online and offline. Overall, the results of the study provide support for eight out of eleven hypotheses and provide evidence that consumers have different decision-making styles across channel characteristics. Table 2-9 provides the results of hypotheses testing.

Conclusions

The findings of this study show that significant differences exist between channel contexts in terms of consumers being perfectionism, brand, novelty/variety,

impulsive/careless, recreational/hedonistic, incentive, and fulfillment conscious, and

confused by over-choice, whereas no significant differences were found in terms of price,

habitual/loyalty, and recommendation consciousness styles. The results indicate that the

average American undergraduate student in our sample is more perfectionism,

novelty/variety, impulsive/careless, recreational/hedonistic, and incentive conscious

when shopping for books offline than online, whereas they are more brand and

fulfillment conscious and confused by over-choice when shopping online. Overall, this

study supports the assumption that consumer decision-making styles vary across channel

environments and certain types of decision-making styles are more prominent in the

context of online shopping rather than offline shopping and vice versa. Interestingly,

this study also revealed that consumers are not more price and variety conscious online

when they shop for books; this finding is contrary to a previous study (Edgecliffe-

Johnson, Grande, & Harney, 2002), which asserted that consumers are more price and

variety conscious online. In addition, the findings of this study support previous studies

that consumer decision-making styles are influenced by product type.

The current study also revealed the followings insights. First, both Churchill

(1979) and Peter (1979) suggest that good reliability and validity of an instrument is

important to the generalizability of findings. The empirical findings suggest that the CSI,

as previously established, is a reliable and valid measure of consumer decision-making

styles in the United States, although the instrument is not a robust instrument for

measuring decision-making styles of people in various countries. Although issues of

generalizability of the results need to be addressed because the sample used for this

study is not representative of all U.S consumers, this study confirms that the existing instrument (CSI) is a robust methodology for measuring shopping orientations and provides a good basis for further comparative work. Second, the newly proposed decision-making styles (i.e. incentive consciousness style, recommendation consciousness style, and fulfillment consciousness style) were also found to be valid and reliable instruments. This result implies that these new styles can be used to develop better consumer decision-making style studies. Third, this study provides some tenable evidence that consumers' decision-making styles are different when they shop offline and online and, thus, supported the proposed overall assumption that decision-making styles are influenced by context. Consequently, this study supports the argument that decision-making styles are not personality trait based, but an individual response pattern since they were not relatively enduring when measured for different contexts.

This study has several limitations. First, the sample used in this study consisted of undergraduate students only. While student samples are not appropriate for every kind of research, most replications of the CSI have used student samples. The age difference and the selective nature of the U.S. sample may have played a role in the differences found. However, the goal was not to describe a general population of consumers in terms of their decision-making styles. Rather, one of the primary goals of this study was to test the validity and reliability of an extended consumer decision-making style inventory. Therefore, a student sample can be considered appropriate. Second, only one product category (book) was utilized in this study to investigate whether consumer decision-making styles are independent from the channel context.

Thus, more than one product category is recommended for future research. However, since the purpose of this study was to examine whether decision-making styles are influenced by channel type, although only one product was chosen to measure it, the results are still meaningful and contribute to the study of decision-making styles. Third, context-dependency was only measured in terms of channel type. Future studies must examine more diverse contexts to generalize this study and support the context-dependency hypothesis. Fourth, a common sampling problem in both single-country and cross-cultural research is that it is unclear which subjects represent a country's central tendencies (Nasif, Al-Daeaj, Ebrahimi, & Thibodeaux, 1991). This study only selected U.S. undergraduates and to enhance the generalizability of the findings, future studies should collect data from comparable samples in different countries.

Retail and marketing managers may benefit from the results reported here. The findings suggest that individual decision makers may be flexible in terms of their decision-making styles in specific contexts. This implies that marketers need to understand their target consumers' decision-making styles across context factors, to improve strategic marketing activities and effective communication to support consumer decisions. In addition, the findings indicate that marketers and retailers needs to continuously observe consumers' decision-making styles and capture emerging new styles since this study shows that macro environmental changes in shopping environments might require changes to the developed dimensions. This kind of response is necessary not only for positioning or advertising products to intrigue consumers, but

also for making adequate strategic and customer personalization to increase customer

satisfaction regarding shopping for the company's products and services.

CHAPTER III

EXAMINING THE RELATIONSIHP BETWEEN PRODUCT TYPE AND

CONSUMER ONLINE DECISION-MAKING STYLES

Introduction

Since the Internet provides quick and easy comparison of many different types of products, searching for product information and buying goods online are becoming increasingly popular activities. Market research companies report that the number of online shoppers is expected to double over the next five years and revenues generated from online shopping will also increase (Forrester's research, 2006). The Internet as a shopping medium has insured that consumers have an unprecedented abundance of choice regarding shopping (Monsuwé, Dellaert, & de Ruyter, 2004). Thus, consumer decision making is becoming increasingly complex due to the development of the Internet (Lysonski et al., 1996). As more consumers engage in online shopping, the need to develop a thorough understanding of online shoppers and their behaviors and preferences is necessary. Specifically, there is a need for a greater understanding of online shoppers' decision-making styles.

Over the last decade, there has been a considerable amount of research regarding consumer decision-making. In pursuing this line of research, several approaches have identified determinants of online shopping behavior including product recommendation, demographics, and shopping list (Wind & Rangaswamy, 1999; Pachauri, 2002; Mandel

& Johnson, 2002; Swaminathan, 2003, McKinney, 2004). Some of this work noted that decision-making styles can be useful for understanding consumers' mental orientation and their decision making process when shopping (Sproles & Kendall, 1986; Sproles, & Sproles, 1990; Bakewell & Mitchell, 2003; Mitchell & Walsh, 2004; Tai, 2005).

However, despite the rapid growth of online shopping, very little attention has been given to consumer decision-making styles as they relate to online shopping. In particular, despite the popularity of online tourism shopping, no study has investigated consumer decision-making styles in the context of tourism products. This is especially pertinent, as online travel revenue will continue to grow strongly and online travel spending will reach $128 billion in 2011 (EyeforTravel, 2006). In most markets, online segment accounts for only a small portion of total revenues and sales but this is not the case in the travel business (eMarketer, 2007).

Recently, Bauer et al. (2006) studied the relationship between consumer decision-making styles and product type and concluded that consumer decision-making styles are influenced by product type. Although the study have pointed out that decision-making traits can be different depending on employ by product type, little studies has attempted to empirically examine whether consumer online decision-making styles are influenced by product type. In particular, investigating whether consumers have different shopping styles when purchasing intangible vs. tangible products online is an underdeveloped area of online consumer behavior research.

Taking these considerations into account, the purpose of this study is to test whether consumer online decision-making styles are influenced by product type. In

particular, this study attempts to investigate whether online decision-making styles are different for tangible, standardized products and intangible, non-standardized products. Despite the considerable contribution of previous research to understanding consumer decision-making styles, the literature has been limited in two ways: (1) a lack of comprehensive understanding of consumers' decision-making styles in an online context; (2) only partial measurement of the relationship between decision-making styles and product type and; (3) lack of consideration of the role of product involvement. Accordingly, this study examines the propositions that (1) product type affects consumer online decision-making styles; and (2) product involvement has a role as a moderator which affects the relationship between consumer online decision-making styles and product type.

Theoretical Background

Decision-Making Styles in Online Shopping Contexts

Decision-making styles are defined as "a mental orientation characterizing a consumer's approach to making choices" (Sproles & Kendall, 1986, p. 268). According to the authors, they represent an enduring orientation towards shopping and purchase (Sproles & Kendall, 1986). Whereas many studies investigated whether decision-making styles vary according to personal factors such as culture and demographics (Hafstrom et al., 1992; Durvasula et al., 1993; Hiu et al., 2001; Kamaruddin & Mokhlis, 2003; Bakewell & Mitchell, 2003; Mitchell & Walsh, 2004; Tai, 2005), little has been

done to determine whether or not context factors influence decision-making styles.

Sproles and Kendall (1986) already described that decision-making styles may vary

according to product category and suggested that this area needs more research.

As the number of online shoppers increase, understanding consumer decision-

making styles becomes more and more significant due to its inextricable relationship

with shopping behavior. However, whereas many studies attempted to test decision-

making styles in the context of traditional stores (Hafstrom et al., 1992; Durvasula et al.,

1993; Bakewell & Mitchell, 2003; Mitchell & Walsh, 2004; Tai, 2005), no study

regarding online decision-making styles has been conducted so far.

Sproles & Kendall (1986) defined a consumer decision-making style as a

patterned, mental, cognitive orientation towards shopping and purchasing, which

constantly dominates the consumer's choice, resulting in a relatively-enduring consumer

personality. Authors demonstrated that decision-making style is not only reflective of

habits and thinking practices, but also involves basic self-evaluation and the general

ability to initiate and maintain intentions (Thunholm, 2004). In contrast, some studies

argued that decision-making is context-dependent (Scott & Bruce, 1995).

Recently, Bauer et al. (2006) proposed a product category-dependent model to

test the relationship between consumer decision-making styles and different kinds of

products. They proposed that not only is there a relationship between consumer decision-

making styles and product type, but also, consumer decision-making styles are governed

by consumers' perceived product involvement. It supports the assumption that decision-

making styles are not a personality trait but are context dependent (Scott & Bruce, 1995).

However, despite the rapid growth of online shopping, little research has investigated whether consumer online decision-making styles are different according to context effects. Specifically, few studies have examined whether online decision-making styles are influenced by the type of product to be purchased. In addition, broadly, the relationship between decision-making styles and product type needs further investigation since it has a significant influence on the style consumers exhibit in decision-making (Bauer et al., 2006).

Product Characteristics

The introduction of electronic commerce and new technology has especially changed the way consumers shop for tourism products. More specifically, the tourism industry has had the opportunity to expand the reach of market areas from the electronic commerce environment due to the unique characteristics of "intangibility" in services (Cho & Park, 2003). In such transactions, the service process can be substituted efficiently by electronic applications. Convenience, price comparison, and lower prices were identified as the primary reasons consumers purchase tourism products and services online (Belodona, Morrison, & O'Leary, 2005; Kim, Kim, & Han 2007).

E-commerce in travel services provides convenience by enabling consumers to make reservations and order tickets from home; either having the tickets or vouchers subsequently delivered to the home or receiving an electronic confirmation of the reservation (Go, Van Rekom & Teunissen, 1999; Bedard, 2000). As a result, online tourism shopping is becoming one of the most popular areas of application for e-

commerce. It has been estimated U.S. online travel revenue will have increased by 38% in 2011 compared to 2006 (EyeforTravel, 2006).

However, despite the rapid growth of online tourism shopping, no study has investigated whether product type influences consumer online decision-making styles, in particular, for intangible products vs. tangible products online. Products are classified in diverse ways: business vs. consumer products, tangible vs. intangible goods; experience vs. search goods; high vs. low cost products; convenience goods, shopping goods vs. specialty goods, etc (Poon & Joseph, 2000; Hassanein & Head, 2005). Also, some researchers empirically showed that products can be classified into two product types such as hedonic and utilitarian products (Laurent & Kapferer, 1985; Mittal, 1989).   In particular, tangibility and intangibility have been considered as two major characteristics that are frequently used to describe a product or service (Peterson, Johnson, & Spreng, 1997; Poon & Joseph, 2000; Phau & Poon, 2000).

Some authors investigated the difference between tangible and intangible products when consumers shop in traditional stores (Murray & Schlacter, 1990; Mitchell, 1999). They found that intangible products presented higher psychological and physical risks to consumers than tangible products. Intangibility makes it difficult for consumers to evaluate services in their decision-making processes and increases their perceived risk (Murray & Schlacter, 1990).

Tourism services (destinations, tours, cruise, etc.) are intangible products, i.e., they cannot be seen, touched, tasted, lifted, or dropped like tangible objects (Kotler, Bowen, & Makens, 2005). Thus, while tangible products (books, computers, clothes,

etc.) can be compared using specific characteristics of the product such as price, brand, design, color, shape, launch date, delivery time, return policy, etc., tourism products cannot be well described and, thus, not well compared. Previous studies described tourism products with four characteristics: intangibility, heterogeneity, inseparability, and perishability (Kotler et al., 2005). For example, tourism products such as hotel rooms and airlines tickets cannot be stored. Although a 100-room hotel sells only 70 rooms tonight, it cannot inventory the 30 remaining rooms and sell them tomorrow. In addition, while tangible goods require delivery directly to customers, intangible products are considered as more flexible in terms of fulfillment requirements (Rayport & Sviokla, 1995). The question that arises is: How do these differences between intangible products and tangible products affect consumer decision-making styles? Taking this into account, this proposed study attempts to figure out whether consumer decision-making styles are influenced by product type (tangible products vs. intangible products), in particular, in an online shopping context.

In this study, in particular, tangible products are considered as standardized products, which can be widely and regularly sold with the same ingredients and amounts. In contrast, intangible products are considered non-standardized products. This study suggests that non-standardized intangible products, such as accommodations, are closer to the characteristics of intangible, non-standardized products rather than such as flights and rental cars. This study argues that first, consumers have a high possibility of perceiving a heterogeneous experience in terms of facility, atmosphere, and landscape when they stay at hotels compared to when they stay in airlines and cars. Second,

accommodations' facilities and service are more diverse according to the price the consumer pays compared to flights and rental cars. Due to the geographical barrier, travelers have limited experience in term of facilities and personal services when they stay in flights and cars. Third, flights and rental cars are understood to be simply the means to bring consumers to their destination while individuals typically care more about their product experience when they stay at hotels. It implies that consumers could have more heterogeneous experience when they stay at hotels compared to when they stay in airlines and cars. Accordingly, in this study, accommodations are selected as an intangible, non-standardized product.

However, sometimes, it is difficult to distinguish between tangible/intangible and standardized/ non-standardized products. For example, if the consumer prefers reserving a room in the same hotel whenever the customer goes to the same travel destination, it is difficult to classify accommodation as intangible, non-standardized products, since the customer has already seen, touched, and smelled the room. Also, they might stay in the same room which has the same facility, landscape, etc. However, this study argues that generally, it is difficult for the consumer to stay in exactly the same hotel room when visiting the same tourism destination in the future. The reason is that although they may stay in the same hotel (if they were very satisfied with their service), it is not easy to secure the same room number, with the same facilities and landscape. Second, consumers seldom go to the same destination over and over again (except in a few special cases) and want to stay in exactly the same room because it is unnecessary and unimportant. In addition, the room might not be available at the time of

the subsequent visit. This study assumes that most consumers cannot see, taste, feel, hear, or smell the product before they reserve a hotel room. Moreover, because the hotel room is not allowed to be seen or touched before it is used, it cannot be compared to other intangible products (other hotel rooms). Based on the above discussion, in this study, accommodations are considered to be intangible, non-standardized products, much like tourism destinations and tours.

Conceptual Model and Hypotheses

Influence of Product Type

When consumers' shopping behavior is investigated, product type cannot be ignored because consumers' shopping behavior can vary according to product characteristics (Vijayasarathy, 2002). The literature in retail studies suggests that type of merchandise has a significant influence on shopping preferences (Eastlick & Feinberg, 1999). Increasingly scholars in marketing are suggesting that product classification schemes could provide a fruitful avenue for understanding consumer buying behavior (Klein, 1988; Ford, Smith, & Swasy, 1990). Recently, Girad et al., and Korgaonkar et al. (2004) also demonstrated that consumer online shopping behavior is significantly influenced by product categories (Girad, Silverblatt, & Korgaonkar, 2004).

However, despite the importance of decision-making styles and product type, most previous decision-making style studies have focused on a single product or similar products. Thus, the relationship between decision-making styles and product types has been relatively neglected.

Recently, a product category-dependent model was proposed. It investigated how product category (wristwatch vs. yogurt) and involvement influence decision-making styles (Bauer et al., 2006). The study concluded that not only there is a relationship between product type and consumer decision-making styles, but also, consumer decision-making styles are governed by consumers' perceived product involvement. They also suggested that further research is needed to verify the model's appropriateness. Accordingly, this study attempts to determine whether consumer online decision-making styles are influenced by product type. It will help to identify whether decision-making styles are affected by a different type of product context. Based on the previous discussion, the following hypothesis is suggested:

H1. Online decision-making styles differ according to tangible, standardized and intangible, non-standardized products.

The following decision-making styles are assumed to be more pronounced for intangible, non-standardized products: First, the variety consciousness style is expected to be more pronounced because consumers are often variety-seekers in the context of tourism and actively look for new tourism experiences. Second, the same is expected for recreational shopping as tourism products are hedonistic products and planning trips is often seen as a pleasurable activity. Third, consumers are expected to be more recommendation conscious in the tourism context because it is difficult to objectively describe intangible products and, thus, tourism relies heavily on word-of-mouth in both traditional and electronic forms. Fourth, the same is expected for brand consciousness

style, since brands help when evaluating products which cannot easily be evaluated. Fifth, the use of incentives is very pervasive for intangible tourism products; for example, most hotels have frequent stay programs, special deals and coupons. Consequently, consumers can be assumed to be more incentive conscious in the context of tourism products. Sixth, intangible products lead consumers to being more confused by over choice. While there might be only a few product choices for a consumer electronic device, there are often a myriad of options for accommodations, making comparison shopping difficult for intangible products. Finally, impulsiveness consciousness style is more expected for intangible products. If consumers cannot search for the best quality product, they might become more impulsive shoppers.

In contrast, the following decision-making styles are assumed to be less prominent for intangible, non-standardized products: First, the perfectionism consciousness style is expected to be less prominent because intangible products must first be purchased and consumed before the consumer is able to evaluate them; thus, consumers are less able to consider the highest quality in products. Second, fulfillment

consciousness style may be less important since intangible products are not necessarily delivered, even though fulfillment is considered an important factor in online shopping. Finally, reliance on the habitual decision-making style is expected to be less since consumers pursue variety, rather than habit, when reserving a room.

No influence is expected in terms of price consciousness style regarding product type. It is assumed that due to technological advances, people can compare prices through a myriad of Web sites. Thus, people will become very price sensitive when shopping online, regardless of product type.

Product Involvement

The concept of involvement has received widespread attention in the marketing domain for over three decades because it has been shown to influence a number of consumer behaviors (Celsi & Olson, 1988; Goldsmith & Emmert, 1991). Involvement can be defined as a person's perceived relevance of an object based on inherent interests, needs and values (Mitchell, 1979; Zaichkowsky, 1985a). It implie that different people do not necessarily show the same level of involvement in shopping and consumption activities. It has also been described as an internal state of arousal comprised of three major properties: intensity, direction, and persistence (Mitchell, 1981; Andrews, Duravasula, & Akhter, 1990). That is, a high level of consumer consideration of the product is recognized as high involvement and in contrast, little interest and persistence signify low involvement.

Rothschild (1979) suggested three types of involvement 1) enduring (cognitive-based), 2) situational (individual-state), and 3) response (response-based). Enduring involvement originates from two sources, which are a consumer's personal subjective appreciation system and experience in the past. It is intrinsically motivated, purchase independent and adopts the social psychological perspective where involvement is treated as the intensity of an attitude (Sherif & Sherif, 1967). Situational involvement refers to a consumer's intent to reach outside goals or temporary concern about the product (Bloch, 1982). That is, it represents a mental state and has nothing to do with cognitive elements such as values and needs (Laaksonen, 1997). Response involvement is referred to as a behavioral orientation of involvement reflecting 'time and or intensity of effort expended in the undertaking of behaviors' (Stone, 1984, p. 210). The three types of involvement have similar results in terms of information seeking activity, attention opinion leaders and advertising, and brand involvement (Mittal & Lee, 1989; Richins & Bloch, 1986).

This study suggests that involvement has a role as a factor which affects the relationship between product type and consumer online decision-making styles. One study found that the causalities between involvement factors and the consumer decision making styles brand/store loyalty are all positive, except in the case of spontaneity and price-value consciousness (Bauer et al., 2006). However, no study investigated how involvement influences the relationship between product type and online decision-making styles. Researchers generally agree that involvement is a product category-specific phenomenon, with different products arousing different levels of involvement

since consumers tend to perceive the shopping and consumption activities associated with products as personally relevant (Bloch, 1981). Past research has also suggested that product involvement may mediate between overall consumer goals and purchase decisions (Mittal, 1995). Based on the previous discussion, this study formulates the following hypothesis:

H2. The interaction between product type and involvement has a significant effect on online decision-making styles.

In summary, the aim of this study is to investigate the relationship between product type and consumer online decision-making style. Consumer involvement is conceptualized as a moderator which influences the relationship between product type and consumer online decision-making styles. Figure 3-1 displays the hypothetical model that is tested in this study.
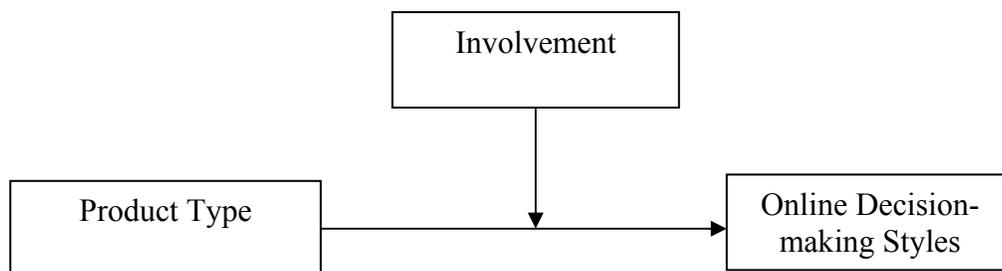
Figure 3-1 Conceptual Model of the Relationship between Product Type, Involvement, and Consumer Online Decision-Making Styles

Methodology

Data for the study were gathered the beginning of April to the end of April

2007 using a Web-based survey. The Web-based survey has some advantages over

the traditional paper-based surveys, including lower costs, faster response,

geographically unrestricted sample, and higher response rate (Ridings, Gefen, &

Arinze, 2002; Duffy, Smith, Terhanian, & Bremer, 2005; Hansen, 2005; Deutskens,

de Ruyter, & Wetzels, 2006). In contrast, the disadvantages of Web-based surveys

primarily concern sampling issues; 1) they reach only those who are online; 2) they

reach only those who agree to become the part of the survey; and 3) not all those

who are invited respond (Terhanian, 2003). However, the purpose of this study is

to investigate consumers' decision-making styles when they shop online. A Web-

based survey is considered the best choice to measure this behavior.

The sample consisted of American graduate students enrolled at US universities.

The sample was acquired in two ways. First, graduate students who study at a large

university located in the Southwest United States were personally contacted via email

and invited to participate in the Web-based survey. Second, professors were personally

contacted via email and asked to distribute the URLs of this survey to their American

graduate students. All contacted students were also asked to send the URLs to their

friends and colleague who enrolled in graduate programs. Thus, this study mainly

followed a snowball sampling technique, i.e. sample acquisition relies on referrals from

initial subjects to generate additional subjects.

To examine the hypotheses of whether product type influences online decision-making styles, two types of questionnaires (A & B) were created. Previous research suggests that books, travel, computer hardware, software, consumer electronics, music, and flowers are selected as the best-selling items for online shopping (Rosen & Howard, 2000). The type 'A' questionnaire asked about purchasing experiences in the content of consumer electronics while the type 'B' questionnaire asked about booking accommodation. Each questionnaire had its own URL and was randomly sent out to subjects. Before generate the each URL link to survey, this study chose an option (the survey is only taken only once per computer station) from the survey software to prevent each respondent from taking the surveys more than once.

In the survey procedure, if subjects had not previously purchased the specific product category online they were re-directed to the other product type questionnaire. If they had no previous experience with either consumer electronics or accommodation, they were only asked to complete questions regarding their socio-demographic characteristics. As a token of appreciation, the students were eligible to win a drawing for a $100 cash prize, by voluntarily entering their email address at the end of the survey. The data collection effort resulted in a total sample of 112 graduate students. These students study at 15 different US universities and have 37 different majors. This study excluded individuals that had purchased/reserved neither consumer electronics nor accommodations from the total responses. A total of 104 responses were acquired from the survey (52 responses each from Type 'A' and Type 'B'). In this study, two-way

ANOVA was performed to test the effect of the independent variable on the dependent variable as well as any interaction effect.

Survey Instrument

Zaichkowsky's PII (Personal Involvement Inventory) (1985b) was adapted in this study since it has acceptable convergent, discriminant, and external validity and has been used extensively. For this study, a shortened version of Zaichkowsky's PII (1985a) was used to measure involvement. Respondents were asked to complete a 10-item, 7-point semantic differential scale, indicating their opinion about consumer electronics and accommodations (e.g., unimportant/important, of no concern/concern, unappealing/appealing," etc.).

CSI (Sproles & Kendall, 1986) items were adapted for measuring respondents' online decision-making styles. Sproles and Kendall (1986) developed the CSI based on the assumption that consumer decision-making behavior can be explained by eight central decision-making styles: Perfectionistic, high-quality conscious consumer, Brand conscious consumer, Novelty, variety conscious consumer, Price, value conscious consumer, Recreational, hedonistic consumer, Impulsive, careless consumer, Confused by over-choice consumer, and Habitual, brand- loyal consumer. The CSI has been considered as a robust instrument to measure decision-making styles of U.S. residents. Since this study aims to measure online decision-making styles of American graduate students enrolled at US universities, the CSI will be the best choice.

The 35-item CSI instrument was adapted in that three additional shopping style dimensions which had been previously tested were added. The three additional dimensions include fulfillment consciousness, incentive consciousness, and recommendation consciousness. The 4-item fulfillment consciousness inventory was derived from Wolfinbarger and Gilly (2003) and then modified. The 3-item incentive consciousness inventory was adapted from Vermeir and Kenhove (2005). The 4-item recommendation consciousness instrument was adapted from Scott and Bruce (1995).

Thus, a total of 46-items for each product context (consumer electronics & accommodations) were constructed to examine whether consumer online decision-making styles are influenced by product type. The items only differed with respect to the product category to which they referred. These items were measured using a seven-point Likert scales, anchored by 1 (strongly disagree) and 7 (strongly agree).

Survey participants were also asked about their involvement with the product category in order to test whether product involvement influences the relationship between product type and online decision-making styles. The final section addressed respondents' socio-demographic information such as age, gender, ethnic background, nationality, marital status, university name, major field of study and level of Internet use skills.

Analysis

Two-way ANOVA was used to test the effect of the independent variable on the dependent variable and also to identify any interaction effect. The advantage of

using a two-way design is that it can test the 'main effect' for each independent variable and also explore the possibility of an 'interaction effect'. An interaction effect occurs when the effect of one independent variable on the dependent variable depends on the level of a second independent variable (Tabachnick & Fidell, 2001). To use ANOVA, the involvement variable (continuous variable) was categorized first as high and low involvement (categorical variable). First, the mean of involvement was calculated and the variable was recoded as '0' (lower than mean) and '1' (higher than mean); then ANOVA was performed.

Results

Profile of Sample

The average age of the respondents was 33, with ages ranging from 18 to 54 years. A total of 38 percent of the respondents were male and 62 percent were

TABLE 3-1

Profile of Respondents (Study 2)

Number of Respondents	104
Age of Respondents	18-24 (20%), 25-34 (68%), 35-44 (9%), 45-54 (3%)
Gender	Male (38%), Female (62%)
Ethnic Background	Black/African American (29%) White (66%) Asian (3%) Prefer no to answer (2%)
Nationality	U.S. Citizen (100%)
Marital Status	Married (22%), Single, Never married (72%), Divorced (1%), Separated (1%), Widowed (2%), Other (2%)
University	15 Universities, including Texas A&M, Oklahoma State, Western Illinois University, University of Utah, University of Champaign-Urbana, Purdue University, Texas Women's University, etc.
Major Field	37 Majors, including Recreation, Parks, & Tourism, Education, Chemical Engineering, Entomology, Computer Sciences, History, Sport Management, Psychology, Sociology, Veterinary Medicine, etc.
Internet Use Skills	Advanced (57%), Intermediate (39%), Beginner (4%)

female. Almost all (96%) subjects indicated they had either intermediate or advanced Internet use skills. Table 3-1 provides a summary description of the survey respondents' characteristics in terms of age, gender, ethnic background, nationality, marital status, university name, major field of study and level of Internet use skills.

Main and Interaction Effects

Cronbach Alpha scores were computed to assess the reliability of the online decision-making styles. The Alpha scores ranged from 0.83 to 0.93 except Novelty and Variety consciousness style (0.79). The Alpha score of involvement was also .90. Thus, this study indicates that the reliability of the constructs that has been used in this study were very high. Two-way ANOVA was used to test the hypotheses. To examine whether the samples were obtained from populations of equal variances (this means that variability of scores for each of the groups is similar), a Levene test for equality of variances was performed. This test provides a test of one of the assumptions underlying analysis of variance. If the significance value is greater then 0.05, it implies that the variance of the dependent variable across the group is not equal (Tabachnick & Fidell, 2001). The result of the Levene test showed that Sig. value of the each online decision-making styles displayed as this was larger than 0.05 and indicated that this study have not violated the homogeneity of variances assumption.

TABLE 3-2

ANOVA Results

Dependent Measure	Independent	F	Sig.
Perfectionistic	P	6.966	.010**
	I	20.306	.000***
	P*I	.408	.525
Brand Conscious	P	9.309	.003**
	I	2.160	.145
	P*I	.018	.893
Price-Value Conscious	P	1.873	.174
	I	1.197	.277
	P*I	2.324	.131
Novelty-Variety Conscious	P	6.865	.010**
	I	12.713	.001***
	P*I	.408	.525
Impulsive	P	.544	.463
	I	4.948	.029**
	P*I	2.691	.104
Confused by Over-Choice	P	5.152	.026**
	I	.156	.694
	P*I	.027	.870
Habitual	P	.542	.464
	I	.000	.983
	P*I	.206	.651
Recreational	P	.380	.539
	I	22.825	.000***
	P*I	5.811	.018**
Incentive Conscious	P	1.761	.188
	I	1.441	.233
	P*I	.047	.828
Recommendation Conscious	P	5.041	.027**
	I	.769	.383
	P*I	.653	.421
Fulfillment Conscious	P	12.789	.001***
	I	9.603	.003**
	P*I	.029	.866

Notes: **Significant at 0.05 level; *** significant at 0.01 level; Dependent variable: online decision-making styles
P: Product Type
I: Involvement
P*I: Product Type* Involvement

The study first checked for the possibility of an interaction effect (e.g. that the influence of product type on online decision-making styles depends on whether consumers consider the product as high or low involvement). The analysis found a significant interaction effect ($F=5.8$, $p < 0.05**$) in terms of 'recreational and hedonistic decision-making styles'. It means that whether consumers consider shopping to be a pleasant activity when they purchase (reserve) either consumer electronics or accommodations depends on whether consumers consider the product as high or low involvement. However, no significant interaction effects of product type and involvement were found when other decision-making styles were tested (see Table 3-2). This implies that involvement does not play an important role in moderating the relationship between online decision-making styles and product type.

Second, this study examined the main effects. The analysis indicates that there is a significant main effect of product type regarding perfectionism consciousness style ($F=7.0$, $p < 0.01**$), brand consciousness style ($F=9.3$, $p < 0.003**$), novelty and variety consciousness style ($F=6.9$, $p < 0.01**$), confused by over-choice shopper ($F=5.2$, $p < 0.026**$), recommendation consciousness style ($F=5.0$, $p < 0.027**$), and fulfillment consciousness style ($F=12.8$, $p < 0.0001**$) (see Table 3-2). The results show that consumers are less perfectionism conscious, brand conscious, and fulfillment conscious when they purchase intangible products online. Also, the findings of this study suggest that consumers are less variety conscious, over confused by choice, and recommendation conscious when they purchase intangible, non-standardized products online. That is, it means that consumers look for the best quality in products; they also prefer buy well-

known national brands and best-selling brands; they expect the accuracy of delivering the product within the promised time; consumer seek out new things pleasurable; people are more concerned with ideas, and opinions of other people when they purchase consumer electronics rather than accommodations. Also, they are more confused by too many brands and stores from which to choose and likely experience information overload in the market when they purchase consumer electronics. The results also show that consumers are price conscious shoppers when they purchase consumer electronics and book accommodations online whereas they are not recreational or impulsive shoppers at all. Table 3-3 provides summary of mean value of the each decision-making style.

TABLE 3-3

Mean Value of Two Products

Decision-Making Styles	Consumer Electronic Mean	Accommodation Mean
Perfectionistic**	5.39	4.75
Brand Conscious**	4.62	3.79
Novelty-Variety Conscious**	5.16	4.85
Price-Value Conscious	5.92	6.10
Impulsive	2.87	2.77
Confused by Over-Choice**	3.92	3.20
Habitual-Store Loyal	4.42	4.22
Recreational Shopping Conscious	3.88	3.71
Incentive Conscious	4.53	4.28
Recommendation Conscious**	4.91	4.27
Fulfillment Conscious***	5.96	5.09

Although some of the proposed hypotheses were not supported in assumed direction (see Table 3-4), this study provided empirical evidences that online decision-making styles differ for tangible, standardized and intangible, non-standardized products. Since this study measured decision-making styles of graduate students when they purchase consumer electronics and accommodations, it is assumed that the sample may have influenced specific values for decision-making styles. However, since the primary goal of this study was to explore the relationship between online decision-making styles and product type, the results are still meaningful and contribute to the study of decision-making styles.

This study also found a significant main effect of involvement (independent variable) regarding perfectionism consciousness style (F=20.30, p <0.000**), novelty and variety consciousness style (F=12.71, p <0.001**), recreational and hedonistic style (F=22.83, p <0.000**), and fulfillment consciousness style (F=9.6, p <0.003**) (see Table 3-2). It means that consumers are tend to search for the best quality in product; they are likely to seek out new things pleasurable; consumers find shopping a pleasant activity; the concern the accuracy of service promises when they purchase high involved products rather than low involved products. This supports previous studies that asserted that involvement plays a critical role in influencing consumer purchase behavior (Celsi & Olson, 1988; Goldsmith & Emmert, 1991).

TABLE 3-4

Summary of Hypotheses Testing (Study 2)

Hypothesis	Supported	Online Decision-Making Styles	Prominence
1. Consumers are less perfectionism conscious when they purchase intangible online.	**Yes**	Perfectionistic	Tangible P
2. Consumers are more brand conscious when they purchase intangible products.	**Yes***	Brand Conscious	Tangible P
3. Consumers are more novelty/variety conscious when they purchase intangible products online.	**Yes***	Novelty-Variety Conscious	Tangible P
4. No influence is expected in terms of price consciousness style regarding product type online.	**Yes**	Price-Value Conscious	No difference
5. Consumers are more impulsive when they purchase intangible products online.	No	Impulsive	
6. Consumers are more confused by over-choice when they purchase intangible products online.	**Yes***	Confused by Over-Choice	Tangible P
7. Consumers are more recreational/hedonic conscious when they purchase intangible products online.	No	Recreational-Hedonistic	
8. Consumers are less habitual /store loyal conscious when they purchase intangible products online.	No	Habitual-Store loyal	
9. Consumers are more incentive conscious when they purchase intangible products online.	No	Incentive Conscious	
10. Consumers are more recommendation conscious when they purchase intangible products online.	No	Recommendation Conscious	Tangible P
11. Consumers are less fulfillment conscious when they purchase intangible products online.	**Yes**	Fulfillment Conscious	Tangible P
Supported not in assumed direction			

In sum, results of the hypotheses tests indicate that data supports Hypothesis 1, because significant main effects of product type were found in about six decision-making styles. Although five online decision-making styles do not show a significant main effect regarding product type, there is no doubt that the overall results imply that online decision-making styles are influenced by product type. However, as an interaction effect between product type and involvement was not found in this study, except for the recreational and hedonistic decision-making styles. This study shows that involvement has a weak role in influencing the relationship between online decision-making styles and product type.

Conclusions

Past research has agreed that decision-making styles can be useful for understanding consumers' mental orientation and their decision making when shopping (Sporles & Kendall, 1986; Sproles, & Sproles, 1990; Bakewell & Mitchell, 2003; Mitchell & Walsh, 2004; Tai, 2005). In addition to shopping in traditional venues, consumers' shopping activities on the Internet are becoming more significant every year in both tourism and non-tourism contexts. However, despite the rapid growth of online shopping for tourism and non-tourism products, very little attention has been given to consumer decision-making styles as they relate to online shopping. In particular, although some researchers are aware that consumers may possess different styles across product categories (Sproles & Kendall, 1986; Bauer et al., 2006), few studies provide clear evidence that decision-making styles are influenced by product characteristics.

This study investigated whether online decision-making styles are influenced by product type. Specifically, this study attempted to investigate whether online decision-making styles are different for tangible, standardized and intangible, non-standardized products. At the same time, this study also examined whether there is an interaction effect between product type and involvement regarding online decision-making styles. Broadly, this study investigated whether consumer online decision-making styles vary according to contextual features.

Several findings are worth noting. First, the findings of this study showed a statistically significant main effect for product type on the variables of perfectionism consciousness style, brand consciousness style, novelty and variety consciousness style, confused by over-choice shopper, recommendation consciousness style, and fulfillment consciousness style. However, there was no statistically significant main effect for product type on the variables of price- value consciousness, impulsive, recreational, and incentive consciousness style. Although some online decision-making styles were not significantly influenced by product type, this study showed that certain types of online decision-making styles were influenced by product type.

Second, this study found a statistically significant main effect for involvement on the variables of perfectionism consciousness style, novelty and variety consciousness style, recreational and hedonistic style, and fulfillment consciousness style. As this study also shows that consumers become the best quality, variety, recreation, and fulfillment conscious shoppers when they purchase high involved products rather than low involved products online, this study propose that involvement has an important role

in influencing online decision-making styles. In addition, it supports the notion that consumers' personal factors play a significant role in influencing purchase behavior.

Third, the results of this study showed a significant interaction effect on recreation decision-making style, but not for other styles. This implies that although product type and involvement influence consumer online decision-making styles, the interaction effect between product and involvement plays less of an important role in terms of online decision-making styles. Overall, this study provides empirical evidence that some consumer online decision-making styles vary within the context of different product types.

There are several limitations to this study. First, this study included only a small number of graduate student respondents, and generalizations to other audiences may not be valid. This composition of the sample may partly explain the online decision-making styles regarding product type. Second, only tangibility was incorporated in distinguishing between product types. Type of product differentiation may play a vital role. Future studies could examine online decision-making styles for the relationship between product type and involvement that are differentiated on other types of product (e.g. experience goods vs. search goods; convenience goods, shopping goods vs. specialty goods; high cost goods vs. low cost goods), while employing a more diverse sample. Third, the term "accommodations" may include many types of hotels, some of which might contain more standardized rooms than others. Future research should test the relationships for a specific product, not a product category.

This study provides insights for marketers in that marketing strategies need to begin with an understanding of product characteristics. As this study also found that consumers' online decision-making styles associated with products as personally relevant, this study implies that marketers can use the findings of this study for not only Web site design and promotional activities, but also Web site personalization and purchase processes for highly involved individuals. Overall, the study suggests that online marketers and retailers need to investigate and understand their target consumers' online decision-making styles, across product types and involvement, for better strategic marketing.

CHAPTER IV

INFLUENCE OF ONLINE TRAVEL SHOPPERS' DECISION-MAKING

STYLES ON LOYALTY TOWARDS ONLINE TRAVEL AGENCIES

Introduction

Information technology plays a fundamental role in the tourism industry because it provides a quick and easy way for travel shoppers to search for travel information and to purchase tourism products. The U.S. is the clear leader of the world's online travel markets. The U.S registered over 60% of total online travel bookings for North America, Western Europe, and the Asia Pacific markets in 2005. The online travel market is expected to reach nearly 60% of the total U.S. travel market ($275 billion) by 2008 (Cannizzaro et al., 2006). It is no doubt that trip planning and booking are the two most popular online activities and this is expected to increase continuously in the U.S (Kim et al., 2007).

Online travel agencies (OTAs) such as Expedia, Travelocity, and Orbitz, are leaders and popular venues of the online travel booking channel. A few years ago, they were able to gain a competitive advantage over traditional brick & mortar tourism agencies through cost transparency and convenience afforded by Web technology (Park & Gretzel, 2006). However, recent developments and advances in information technologies challenge the status of OTAs. For instance, the majority of travel shoppers

visit OTAs for searching tourism information, but when they have to purchase tourism products, half of them move to supplier Web sites (PR Newswire, 2005). According to eMarketer (2005), over the last year, OTA sales increased only 19 percent whereas travel supplier sales increased 27 percent. Supplier sites will continue to grow and it is expected that the supplier and OTA channels will grow at 18% and 17%, respectively (Cannizzaro et al., 2006). In addition, OTAs are facing challenges through the emergence of travel meta-search engines as well. As a new breed of technology, travel search engines such as SideStep, Kayak, Mobissimo, Cheap Flights, etc., have the potential to significantly change the online travel distribution landscape as they make it increasingly easier for consumers to identify and book from individual suppliers (Park & Gretzel, 2006).

Currently, OTAs come with their own set of challenges because consumers can compare and contrast competing products and services from other types of tourism sites. Competitors in the world of e-commerce are only a few mouse clicks away. Thus, from an e-marketer and retailer's perspective, loyalty is recognized as a key path to profitability since loyalty relates to an enhanced resistance to competitive messages, lower selling costs, a decrease in price sensitivity, and an increase in favorable word-of-mouth (Dick & Basu, 1994; Reichheld & Schefter, 2000).

However, despite the fierce competition within online tourism distribution channels, the conceptualization and empirical validation of loyalty in an e-tourism context has not been addressed. In particular, the relationship between the decision-

making styles of online travel shoppers and their loyalty to a particular online tourism booking site has not been studied.

Previous studies indicate that different decision-making styles can be driven by consumers' evaluative criteria based on personal goals, values, and their situations and that consumers can be classified according to their decision-making styles (Sproles & Kendall, 1986; Wickliffe, 1998). Some researchers suggested that creating loyalty depends on meeting the needs of the customer better than competitors do (Oliver, 1999; Reynolds & Beatty, 1999) and the level of loyalty achieved is partially dependent on the characteristics of the target consumers (Sharp & Sharp, 1985). Accordingly, this study intends to provide empirical investigation to support the hypothesis that decision-making styles of online travel shoppers influence loyalty.

Background

Overview of Online Travel

Compared to a few years ago, the online travel distribution landscape has significantly changed due to the growth and advance of information technology. The majority of travel shoppers visit not only online travel agencies, but also supplier Web sites and travel search engines for travel planning (PR Newswire, 2005; Cannizzaro et al., 2006). They all have a competitive advantage over traditional brick & mortar tourism agencies through cost transparency, greater flexibility, lower cost structures, broader product lines, faster transactions, and convenience afforded by Web technology.

Though they have partnerships with one another, due to similar features, consumers are able to compare and contrast competing products and services with minimal expenditure of personal time or effort, which causes fierce competition within tourism distribution channels.

Supplier Web Sites

In response to the fast pace of the information age, many flights, accommodations, and car rentals have been working hard to develop their own Web sites to meet customers' needs and expectations, which has been impacted by the advancement of information technology. Supplier Web sites sell travel related products from the site of a specific provider such as a hotel property, airline, etc. They are not only informative, but also functional, allowing online travel shoppers to book a flight, a room, car rental, and packaged tours. Most supplier Web sites also provide one-stop service, a gradual shift since the beginning of the 21st century. They have a partnership with online travel agencies and travel search engines, while they also compete with one another. It implies that the travel ecosystem is extremely dynamic.

Travel Search Engines

Travel search engines are sites that sell travel related products from a wide range of options, including online travel agencies and supplier Web sites. The big difference, compared to other online tourism booking sites, is that after a selection is made from the

search results, travel search engines send users directly to the supplier's Web site and online travel agencies to complete the purchase (Park & Gretzel, 2007).

Travel search engines are thought of as more consumer-friendly than other online booking Web sites because they crawl the Web sites of travel suppliers more frequently, consequently generating an even broader array of choices (Eyefortravel, 2005b). Thus, TSEs are moving up the value chain by offering travelers a one-stop search model, enriched content, and user-friendly interfaces. Sidestep has emerged as the leading TSE, followed by Cheapflights. Other important players include Kayak, Yahoo! Farechase, Mobissimo and Qixo (Eyefortravel, 2005a). Although online travel shoppers are not as familiar with travel search engines, when compared to online travel agencies (Park & Gretzel, 2006), they have the highest percentage of market share in online travel markets since 2004 (TIA, 2005).

Online Travel Agencies

Online travel agencies score the highest volume of tourism visitor traffic and attract travel shoppers with aggressive lowest-price strategies (eMarketer, 2005). Expedia, Travelocity, Orbitz, Priceline, etc. have become popular venues with higher brand name recognition. They sell travel related products from a number of tourism providers with which they have formed partnerships. All transactions are completed only through their site rather than the site of a specific provider. According to Park, Gretzel, & Sirakaya (2007), Expedia, Travelocity, Orbitz, and Priceline are the most popular sites that online travel shoppers have either heard of or used.

However, OTAs still confront some challenges within the online travel distribution channels. According to TIA (2005), in 2004, 67% of online travel information searching and planning was via online travel agency sites, 64% on search engines, and 54% on supplier sites. The majority of online travel planners visit online travel agencies such as Expedia and Travelocity for searching tourism information, but when they have to purchase tourism products, half of them move to supplier Web sites such as airline company sites, hotel sites, etc. (PR Newswire, 2005). Also, the market share of visits to four of the major TSEs has tripled from October 2004 to April 2005, whereas visits to the top five travel agency sites (Expedia, Travelocity, Orbitz, Yahoo! Travel and CheapTickets) increased by only 11 percent (Hitwise, 2005).

Online travel agencies face increasing levels of competition and, thus, have an ever greater need to acquire consumer loyalty toward their Web sites because this is recognized as a key path to success of business. This study intends to investigate online travel shoppers' loyalty toward OTAs.

Online Decision-Making Styles

With the emergence and advances of the Internet, tourism Web sites have become an important medium for planning a trip to a destination. Although some studies found that individuals' personality traits, such as need for social affiliation, consumer relationship and need for variety, are related to customer loyalty (Vázquez-Carrasco & Foxall, 2006), no study has drawn attention to the need to consider how online decision-making styles influence loyalty. It is argued that the way consumers

shop online in terms of criteria they take into account can have a great influence on consumer behaviors such as loyalty.

Decision-making styles are viewed primarily as a patterned, mental, cognitive orientation towards shopping and purchasing, which constantly dominates the consumer's choice, resulting in a relatively enduring consumer personality (Sproles & Kendall, 1986). However, some researchers claim that it is the learned habitual response pattern exhibited by an individual when confronted with a decision situation (Scott & Bruce, 1995).

Sproles and Kendall (1986) developed the Consumer Style Inventory (CSI) to systemically measure shopping decisions by using decision-making orientations. The CSI provides eight different decision-making dimensions, which determine the shopping decisions made, to explain why shoppers behave in certain ways. The eight different decision-making dimensions are Perfectionistic, high-quality conscious consumer, Brand conscious consumer, Novelty, variety conscious consumer, Price, value conscious consumer, Recreational, hedonistic consumer, Impulsive, careless consumer, Confused by over-choice consumer, and Habitual, brand- loyal consumer.

The theoretical assumption behind Sproles and Kendall's ideas is that each individual consumer has a specific decision-making style which determines the shopping decisions they make. In this study, online decision-making style refers to a learned habitual response pattern when confronted with a decision situation in an online shopping context.

Loyalty

The importance of loyalty has been recognized in the marketing literature for at least three decades because it reduces marketing costs (Aaker, 1991) and creates positive word-of-mouth and willingness to pay more and is a key path to profitability of a company (Reichheld, 1993; Dick & Basu, 1994; Hagel & Amstrong, 1997; Sriniviasan, Anderson, & Ponnavolu, 2002). Assael (1992) defined loyalty as "favorable attitude toward a brand resulting in consistent purchase of the brand over time" (p. 82). Loyalty itself is considered as a multi-faceted concept with both behavioral and attitude components.

Behavioral loyalty focuses on a measure of proportion of purchase of a specific brand while attitudinal loyalty is measured by psychological commitment to the target object (Caruana, 2002). There were debates regarding whether attitudinal loyalty leads to behavioral loyalty (actual purchase) in the loyalty literature. While some researchers stated that attitudinal loyalty is the antecedent of behavioral loyalty (Baldinger & Rubinson, 1996), some argued that there is no evidence that attitudinal loyalty can lead future behavior (Ehrenberg, 1997; Sharp et al., 2002). Some researchers have explained that the disadvantage of solely focusing on behavioral loyalty is that it does not distinguish between true loyalty and spurious loyalty (Day, 1969; Bloemer & Kasper, 1995; Knox & Denixon, 2000). Thus, many researchers follow Day's (1969) approach that both the attitudinal and behavioral dimensions need to be incorporated in any measurement of loyalty.

The advent and growth of e-commerce has magnified the importance of building a loyal visitor. It becomes a very important asset for e-commerce since competing businesses in the world of e-commerce are only a few mouse clicks away (Gommans, Krishnan, & Scheffold, 2001). Online markets are different from offline markets in terms of not only non-existence of human beings and physical facilities, but also more opportunity for interactive and personalized marketing (Wind & Rangaswamy, 2001). Thus, these opportunities may influence customer loyalty differently in the online market, although the concept of loyalty extends the traditional brand loyalty concept to online consumer behavior.

Customers can more easily compare product and service information in an online environment. Because of this, many online marketers fear acquiring new customers and they know that building loyalty becomes an economic necessity for the online store and business success (Reichheld & Schefter, 2000). However, despite the importance of loyalty in e-commerce setting, little theoretical research has been done so far in this field. In particular, whereas many researchers provide empirical evidence that satisfaction, quality, involvement, innovativeness, and switching cost influence e-loyalty (Thatcher & George, 2004; Balabanis, Reynoldes, & Simintiras, 2006; Wang, Pallister, & Foxall, 2006), the influence consumers' online decision-making styles have on loyalty toward Web sites has not yet been considered.

This study proposes loyalty as a composite concept combining both behavioral loyalty and attitudinal loyalty to enable maximum explanatory power of the construct. Some researchers suggest that, for loyalty in a service context, a behavioral loyalty

measure is not sufficient because as the perceived risk increases, the likelihood of

loyalty to one brand increases (Rundle-Thiele & Bennett, 2001; East, Gendall,

Hammond, & Lomax, 2005). Thus, this study defines loyalty as a customer's favorable

attitude and repeat buying behavior on a particular Web site.

Recently, Vázquez-Carrasco and Foxall (2006) acknowledged that individual's

personality traits are systematically related to their behavior as a consumer and they can

contribute to explain the result of relational marketing, especially customer loyalty.

Some researcher also investigated whether personality is significantly related to tourism

behavior (Frew & Shaw, 1999). The study concluded that some particular personality

types affecting tourist behavior. For example, artistic personality type was more likely

visit national art gallery and international festival of the arts. Also realistic style was less

likely to visit the international comedy festival whereas investigative personality style

was more likely to visit the place. Monsuwé et al (2004) also claimed that consumer

traits also affect their attitude and intention toward online shopping.

The consumer characteristics approach to understand consumer decision-making

styles has been considered to be the most powerful and explanatory since it focuses on

the mental orientation of consumers in making decisions (Sproles & Kendall, 1986).

This type of approach assumes that consumers follow certain decision-making traits to

handle their shopping behavior. Psychologist suggested personality traits are relatively

enduring, general factors influencing many behaviors but similarly consumer

characteristics also influence variety of similar behaviors (Sproles & Kendall, 1986).

Taking this into consideration, this study assumes that online decision-making styles

influence loyalty. In particular, some decision-making styles are positively related to loyalty while others are negatively related to loyalty.

In this study, perfectionism consciousness and brand consciousness styles are expected to have a positive relationship with loyalty. Consumers with perfectionism consciousness are not easily satisfied with good enough products, so they search carefully and systematically for the best quality in products. Thus, this study assumes that once they find a Web site, and have a good experience regarding the best quality in products and service, they might prefer to return to the same Web site. In addition, consumers with brand consciousness style typically look for well-known brands; as long as they find a best-selling, advertised Web site, they may routinely shop by visiting the same site repeatedly over time. Since this study are conducted an individual who ever purchased tourism products through OTAs, if habitual shoppers already purchased tourism products from OTAs, they will in the future. Thus, habitual consumers are also expected to have a positive relationship with loyalty toward OTAs.

In contrast, this study assumes that variety seeking shoppers and recreational shopper are less loyal because they usually seek out new pleasurable items and a pleasant activity, and they might not return to the same Web site over and over again. Price value consciousness shoppers are expected to have a negative relationship with loyalty because they mostly seek out sale prices and lower prices in general. Impulsive shoppers tend to buy products on the spur of the moment rather than planning and it assumes that they will less loyal. Incentive consciousness shoppers are also expected to be less loyal because they might prefer to book from supplier sites in order to get their

incentives. This study assumes that confused shoppers have a negative relationship with loyalty. They are perceived that there are too many brands and stores from which to choose and who likely experience information overload in the market. Thus, they do want to deal with a lot of options and will less return to the same store and sites. If shoppers already perceived OTAs' fulfillment and shoppers think that OTAs provide more recommendations than suppliers, fulfillment and recommendation consciousness consumers are expected to be loyal. Overall, this study proposed that decision-making styles are either strongly positively or negatively related to loyalty toward OTA Web sites. The following hypotheses are proposed to take this into consideration.

> H1. Perfectionistic, high-quality consciousness style has a positive relationship loyalty toward OTAs.
>
> H2. Brand consciousness style has a positive relationship loyalty toward OTAs.
>
> H3. Novelty-variety consciousness style has a negative relationship loyalty toward OTAs.
>
> H4. Price-value consciousness style has a negative relationship loyalty toward OTAs.
>
> H5. Impulsive-careless style has a negative relationship loyalty toward OTAs.
>
> H6. Confused by over-choice style has a negative relationship loyalty toward OTAs.
>
> H7. Recreational-hedonic consciousness style has a negative relationship loyalty toward OTAs.

H8. Habitual-store loyal consciousness style has a positive relationship loyalty

toward OTAs.

H9. Incentive consciousness style has a negative relationship loyalty toward

OTAs.

H10. Recommendation consciousness style has a positive relationship loyalty

toward OTAs.

H11. Consumers are more fulfillment consciousness style has a positive

relationship loyalty toward OTAs.

Taking these considerations into account, a conceptual model to examine the

relationship between online decision-making styles and loyalty is proposed (see Figure

4-1).

Perfectionistic, high-quality conscious consumer	
Brand conscious consumer	
Novelty, variety conscious consumer	
Price, value conscious consumer	OTA Loyalty
Recreational, hedonistic consumer	
Impulsive, careless consumer	
Confused by over-choice consumer	
Habitual, brand- loyal consumer	
Fulfillment conscious consumer	
Incentive conscious consumer	
Recommendation conscious	

⟶ *Positive relationship*

⤍ *Negative relationship*

Figure 4-1 Proposed Model of Factors Influencing OTA Loyalty

Methodology

Based on the results of a series of pre-tests, an online panel survey was conducted to examine the relationship between online travel shopper decision-making style and loyalty. Online panel surveys have been commonly used in marketing research (Duffy, Smith et al., 2005; Hansen, 2005; Deutskens et al., 2006) because of key advantages such as access to research participants, targeted sampling for low-incidence groups, rapid data collection, and previously collected background data on participants, and Internet-based panels (Dennis, 2001).

In contrast, weaknesses of online panel surveys are 1) they are only able to reach an individual who has joined as a member of an online panel; 2) they are only able to reach an individual who is able to access the Internet; and 3) they may not include all the members of a panel. Some researchers have compared data collected from online, face-to-face, and mailed surveys and concluded that the results are similar to one another (Duffy et al., 2005; Deutskens et al., 2006). This study attempted to use the online panel survey to investigate whether consumer online decision-making styles influence loyalty since it is considered a valid and efficient quantitative method with its own distinct advantages.

In this study, the online panel survey was conducted over a period from the end of April to the beginning of May 2007 with U.S. adults who had purchased tourism products online for a pleasure trip during the previous 36 months. Once the survey was deployed, the survey company sent out email invitations to individuals who are pre-recruited by survey companies. Each subject was asked to confirm that they have read

and understand the information provided on the consent form by clicking on a hyperlinked button which were on the first Web page.

The survey started with a screening question, indicating the number of pleasure trips they have taken in the past three years. Respondents, who said "Yes", were asked about the percentage of purchase/reserve/rent of tourism products such as an airline ticket, accommodation, and car has been through online travel agencies. For those who had not taken a pleasure trips in the past three years, they were automatically moved to the demographic questions. In the next section, for those who had not purchased tourism products such as an airline ticket, accommodation, and car has been through online travel agencies, they were also directly moved to the demographic questions.

First, the panelist was asked about their behavior loyalty toward OTAs and then they were asked to respond the questions relating to their online decision-making styles. Since airline tickets are a popular product in online shopping (Rosen & Howard, 2000), the respondents' were asked their online decision-making styles when they purchase 'airline tickets' through OTAs. The final section addressed respondents' socio-demographic information such as age, gender, marital status, ethnic background, nationality, marital status, nationality, education level, and household income including their level of Internet usage.

The survey took approximately 15 minutes to complete. Once a survey was completed, the respondent would be directed to the sweepstakes entry, where they need to key in their email address for a drawing to win the prizes that are managed by the survey company. The sampling procedure yielded a total 355 complete responses from

total 781 responses. To examine the proposed model, a linear regression was employed to test the hypotheses.

Survey Instrument

To measure consumer online decision-making styles, the 33-item instrument from CSI (Sproles & Kendall, 1986) were adapted. However, few studies have investigated and identified new customers' needs and preferences regarding shopping behavior, since the mid 1980s. Thus, three decision-making styles not identified in previous studies were proposed in this study based on the relevant literature review. The newly proposed styles are Fulfillment consciousness, Incentive consciousness, and Recommendation consciousness. The 4-item for Fulfillment consciousness was derived from Wolfinbarger and Gilly (2003), the 3-item Incentive consciousness was developed from Vermeir and Kenhove (2005), and the 4-item recommendation consciousness was developed from Scott & Bruce (1985). Total 44-item regarding online decision-making styles was modified to fit this study.

In this study, certain items used to measure decision-making styles had to be modified to fit the context of purchasing airline tickets online. For example, the item "I make a special effort to choose the very best quality" was revised as "I make a special effort to choose the very best flight option" to fit the online context and the context of airline ticket purchase. The item "Getting very good quality is very important to me" was also substituted by the item "Getting the best flight option is very important to me." One of the fulfillment consciousness items, "When I shop, I am concerned about

whether the return policy at the Web site is reasonable" was not applicable to measuring consumers' online decision-making styles because airline tickets are not returnable (see Appendix C). The variables were measured using a scale ranging from 1-strongly disagree to 7-strongly agree.

Past behavioral loyalty was measured as proportion of brand purchases (Brown, 1952; Cunningham, 1956; Iwasaki & Havitz 1998). It included one item which was operationalized as the percentage of tourism products purchased from online travel agencies in the past three years. The loyalty measure also included three items measuring future behavioral intent. Specifically, subjects were asked how likely they were to purchase 1) airline tickets, 2) accommodations, and 3) rental cars from OTA Websites the next time such a purchase need will occur. The items were measured on a 7-point scale ranging from 1-extremely unlikely to 7-extremely likely.

Analysis

Multiple regression analysis was used in this study to test the proposed hypotheses. The reliability of the scales was measured using Cronbach's Alpha. The uni-dimensionality of the constructs was also tested using factor analyses with principal components as the extraction method and Varimax rotation. Stability and discriminant validity of the thirteen-factor structure were then assessed using the criterion suggested by Fornell and Larcher (1981), who contend that for discriminant validity to exist

between two constructs, the average variance extracted of both constructs must be greater than the variance shared by the two.

Results

Profile of Sample

The average age of the respondents was 44, with ages ranging from 18 to 65 years (or above). Almost half of the respondents were male (49.6%) and half were female (50.4%). In terms of racial diversity within the sample, the vast majority was white (88.2%). Minority groups represented in this sample included Hispanic (4.2%), Black or African American (3.7%), Asian (1.1%), and Native American or American Indian (0.3%). Respondents were also asked about their education level, with options ranging from "Less than high school" to "Post graduate work started or completed." Approximately one tenth (10%) of the respondents completed high school or less, and 26.8 percent of the respondents had some college education. The remaining 63.3 percent of people had a college degree or more.

Respondents were further asked about their household income for the previous year. The average annual household income of respondents of this survey was $76,000. The median income range of the respondents was $75,000 to less than $99,999. Nearly half of the respondents fell into the categories of "$50,000 to Less than $74,999" (23.8%) and "$75,000 to Less Than $99,999" (21.1%). While 4.0 percent of the respondents' family earned less than $40,000 annually, 23.4 percent of them made more than $100,000 last year. Almost all (85%) subjects indicated they had either

intermediate or advanced Internet use skills and a majority (67%) of sample is married.

Table 4-1 provides a summary description of the survey respondents' characteristics.

TABLE 4-1

Profile of Respondents (Study 3)

Number of Respondents	355
Age of Respondents	18-24 (2%), 25-34 (15%), 35-44 (17%), 45-54 (29%), 55-64(26%), 65 or above (11%)
Gender	Male (49.6%), Female (50.4%)
Ethnic Background	Black/African American (3.7%) Hispanic (4.2%) Native American/American Indian (0.3) White (88.2%) Asian (1.1%) Prefer no to answer (0.8%) No response (1.7%)
U.S. Citizen	Yes (96%), No (4%)
Marital Status	Married (67%), Single (15%), Never married (11%), Divorced (1%), Separated (2%), Widowed (3%), Other (1%)
Education Level	Less than high school (0.3%) Completed high school (7.7%) Some college, not competed (26.8%) Completed college (34.5%) Post graduate work started or completed (28.8%) No response (1.9%)
Income	Less than $20, 000 (4.0%) $20,000 to $29,999 (6.3%) $30,000 to $49,999 (20.6%) $50,000 to $74,999 (24.6%) $75,000 to $99,999 (21.7%) $100,000 and above (23.4%)
Internet Use Skills	Advanced (44%), Intermediate (41%), Beginner (5%)

On the whole, in comparison to general American online travelers (TIA, 2005), the online panelists surveyed in this study are demographically similar to typical online travelers in terms of age, marital status, education level, annual income, and internet skill. Thus, overall, based on descriptive statistics, it may be concluded that the present sample represents general online travelers demographically.

In this study, panelists were also asked "What percentage (%) of all tourism products you purchased online for pleasure travel in the past 3 years did you purchase through Online Travel Agencies" to examine their past behavior loyalty. Forty percent of the respondents answered that they purchased tourism products through OTAs more than 70% of the time, while 20% of them answered 50-70% of tourism products were transacted through OTAs in the past 3 years. This shows that more than 60% of respondents had purchased 50% of total tourism products through OTAs. Table 4-2 provides a summary of frequency of OTA usage in the past three years.

TABLE 4-2

Frequency of OTAs Use

Percent of Frequency of OTAs Use	Percent of Respondents (%)
1-10%	18
11-20%	5.6
21-30%	10.7
31-40%	5.4
41-50%	11
51-60%	5.6
61-70%	3.1
71-80%	10.4
81-90%	4.5
91-100%	25.6

Evaluation of Scales

Cronbach Alpha scores were computed to assess the reliability of the constructs. The Alpha scores ranged from 0.76 to 0.96, thus indicating that the reliability was very high (see Table 4-3). Factor analysis using principal components and Varimax rotation was used to evaluate overlap between the scales and to test whether the constructs were also uni-dimensional. Exploratory factor analysis (EFA) was employed to determine how many components were extracted with an eigenvalue of 1 or more. The results

showed that a total of 11 components recorded eigenvalues above 1. These 11

components explain a total of 86.53 % of the variance. To make sure that they do not

comprise a composite variable, stability and discriminant validity of the 11-factor

structure were then assessed using the criterion suggested by Fornell & Larcher (1981).

The results suggest that the identified 11-factor structure has a high discriminant validity

because the average extracted variance for each factor was higher than the shared

variance between factors.

Tabachnick and Fidell (2001) recommend an inspection of coefficients greater

than .3. This issue to be addressed concerns the strength of the inter-correlations among

the items. In this study, correlations of items within a factor were .52 and above. Thus,

the results confirmed that factor analysis was appropriate to use. Table 4-3 also shows

that the factor loadings were all higher than 0.50 and the variance explained was greater

than 50 % for each of the factors. This confirmed again that the constructs were uni-

dimensional. Overall, the findings indicate that the instrument is robust and reliable.

TABLE 4-3

Measurement Properties of Scales of Independent Constructs

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Price-Value Conscious	**6.17**	**1.07**		**4.92**	**81.97%**	**0.96**
I look carefully to find the best value for my money.	6.10	1.24	.94			
I carefully watch how much I spend.	6.28	1.12	.90			
I am conscious about my economic condition when shopping online.	6.11	1.16	.87			
I always buy airline tickets that are useful to me and are of reasonable price.	6.11	1.20	.92			
I am willing to spend time to compare prices among Web sites in order to buy some lower priced airline tickets.	6.19	1.22	.88			
I buy airline tickets with the best value for my money.	6.21	1.17	.92			
Perfectionistic	**5.96**	**1.14**		**2.68**	**89.39%**	**0.90**
I make a special effort to choose the very best flight option.	5.94	1.25	.96			
When I booking airline tickets, I try to get the very best or perfect choice.	5.97	1.17	.93			
Getting the best flight option is very important to me.	5.97	1.18	.94			
Fulfillment Conscious	**5.31**	**1.44**		**3.13**	**78.35%**	**0.91**
When I shop for airline tickets online, I am concerned about whether I receive a confirmation of my purchase quickly.	5.00	1.70	.86			
I am concerned about whether the cancellation policy is reasonable.	5.30	1.60	.88			
I am concerned about whether transactions at the site are error-free.	5.42	1.58	.91			
I am concerned about whether transactions at the site are secure.	5.53	1.58	.89			
Brand Conscious	**4.73**	**1.21**		**3.10**	**77.58%**	**0.90**
The most advertised Web sites are usually very good choices.	4.72	1.38	.87			
I prefer buying airline tickets from the best selling Web sites.	4.85	1.41	.89			
Nicely designed and specialty Web sites offer me the best airline tickets.	4.48	1.42	.87			
Well-known branded Web sites are best for me.	4.87	1.28	.89			

TABLE 4-3 (Continued)

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Confused by Over-Choice	**3.23**	**1.45**		**3.25**	**81.32%**	**0.92**
There are so many Web sites to choose from that I often feel confused.	3.19	1.59	.92			
Sometimes it's hard to choose which Web sites to shop.	3.36	1.61	.87			
All the information I get on different airline tickets confuses me.	3.18	1.59	.91			
The more I learn about airline tickets, the harder it is to choose the best.	3.17	1.64	.91			
Recreational shopping Conscious	**4.54**	**1.40**		**2.98**	**74.59%**	**0.88**
Online shopping is one of the enjoyable activities in my life.	4.23	1.70	.93			
Online Shopping is a pleasant activity for me.	4.54	1.61	.92			
I enjoy online shopping just for the fun of it.	4.08	1.82	.93			
I prefer to take my time when shopping online.	5.33	1.33	.68			
Recommendation Conscious	**3.64**	**1.46**		**3.06**	**76.45%**	**0.90**
I use the advice of other people in making my important decisions	4.10	1.62	.83			
I like to have someone steer me in the right direction when I am faced with important decisions	3.68	1.67	.92			
I often need the assistance of other people when making important decisions.	3.00	1.68	.87			
If I have the support of others, it is easier for me to make important decisions.	3.80	1.73	.88			
Impulsive	**2.72**	**1.33**		**3.61**	**72.23%**	**0.90**
I should plan my shopping more carefully than I do.	3.20	1.63	.80			
I am impulsive when purchasing.	2.80	1.62	.90			
Often I make careless purchases I later wish I had not.	2.45	1.54	.92			
I do not take time to shop for the best buy.	2.26	1.48	.87			
I usually buy without hesitation.	2.89	1.60	.76			
Habitual, Brand Loyal	**4.93**	**1.20**		**2.47**	**82.26%**	**0.89**
I have favorite Web sites from which I buy over and over.	5.16	1.37	.91			
I go to the same Web site each time I shop.	4.66	1.32	.89			

TABLE 4-3 (Continued)

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
I regularly buy from the same Web sites.	4.97	1.30	.92			
Novelty-Variety Conscious	**5.09**	**1.16**		**2.07**	**69.06%**	**0.76**
It's fun to buy something new and exciting.	5.25	1.44	.88			
I like to try new options	5.15	1.33	.92			
I don't mind buying from Web sites from which I have never bought before.	4.87	1.44	.68			
Incentive Conscious	**4.83**	**1.48**		**2.39**	**79.50%**	**0.87**
When I shop for airline tickets online, I am concerned with whether the site provides special offers.	4.95	1.53	.82			
I look for incentives such as coupons, sweepstakes, cash rebates, bonus mileage, gifts, etc.	4.79	1.69	.93			
I am more attracted to Web sites that offer incentives.	4.75	1.74	.92			

The scale was recoded into a 7-item scale by summarizing the mid values into 3 groups and leaving the extreme value categories intact. Second, a loyalty scale consisting of 4 attitudinal and 4 behavioral items was created. In the test, attitudinal and behavior loyalty were loaded together and confirmed uni-dimensional (see Table 4-4). The Alpha score was also high (Alpha =0.89) and the factor loadings were all higher than 0.50 and the variance explained was greater than 50 percent for each of the factors. Thus, confirmed that these two constructs can be a construct. Panelist was asked total 4-item to measure their behavior loyalty. One item was for past behavior loyalty and three item was for future behavior loyalty.

TABLE 4-4

Measurement Properties of Scales of Dependent Constructs

Factor Name	Mean	SD	Factor Load.	Eigen Value	Variance Expl.	Alpha
Loyalty	**4.56**	**1.34**		**4.84**	**60.54%**	**0.89**
Attitudinal Loyalty						
I try to use OTAs whenever I need to make a purchase.	4.75	1.59	.91			
When I need to make a purchase, OTAs are my first choice.	4.66	1.66	.91			
I like using OTAs.	5.00	1.46	.89			
To me OTAs are the best type of Web site from which to purchase tourism products.	4.76	1.52	.88			
Behavior Loyalty						
What percentage (%) of all tourism products you purchased online for pleasure travel in the past 3 years did you purchase through Online Travel Agencies	4.18	2.14	.52			
How likely are you to use the following Web sites to purchase 'Airline Tickets' for your next pleasure trip	4.81	1.92	.76			
How likely are you to use the following Web sites to purchase 'Accommodations' for your next pleasure trip	4.49	1.92	.66			
How likely are you to use the following Web sites to rent a 'Car' for your next pleasure trip	3.85	2.09	.58			

A Significant Relationship between Online Decision-Making Styles and Loyalty

A linear regression model was run to examine the influence of the 11 online-decision-making styles on subjects' OTA Loyalty. Since multicollinearity or singularity do not contribute to a good regression model, this study first checked whether the independent variables were highly correlated (r =.9 and above) (Tabachnick & Fidell,

2001). First, in order to check the possibility of multicollinearity, this study checked the

correlation between each of the decision-making style to make sure it was not too high.

The results show that the correlation of all variables was less than .7, confirming that

they are not correlated variables. Tabachnick and Fidell (2001, p. 84) suggest that if a

bivariate correlation is .7 or more, one should consider omitting one of the variables or

forming a composite variable. Second, this study also examined Tolerance and VIF to

double check for the possibility of multicollinearity because multicollinearity may not be

evident in the correlation matrix (Tabachnick & Fidell, 2001). If the tolerance value is

less than .10 or the VIF value is above 10, it indicates that the multiple correlation with

other variables is high, suggesting the possibility of multicollinearity (Tabachnick &

Fidell, 2001). The results showed that Tolerance and VIF values of each online

decision-making style was not less than .10 (the scores for all variables ranged

between.39 and .75) and not above 10 (the scores for all variables ranged between1.4

and 2.9), which confirmed that this study did not violate the multicollinearity assumption.

Table 4-5 presents the results of the regression analyses. The overall model was

found to be significant p ($< .000$) with an adjusted R^2 of 0.341. The result was

significant and the included constructs explained 30% of the variance of the dependent

variable. As can be seen, these findings provide as consumer conscious perfectionism

and brand more, their OTAs loyalty increased as well while consumer conscious variety

less, their OTAs loyalty increased. Also, consumers who have habitual shopping style

are more loyal toward OTAs whereas consumers who are confused by over-choice are

less loyal toward OTAs. In all the model, perfectionism consciousness style, brand

consciousness style, variety consciousness style, habitual, brand- loyal style, and

confused by over-choice style effect on the dependent variables was statistically

significant. However, no effects on the loyalty toward OTAs were found when other

online decision-making styles were tested (see Table 4-5). Overall, the results of the

study provide support for five out of eleven hypotheses and provide evidence that

consumers online decision-making styles significantly influence their loyalty toward

OTAs.

TABLE 4-5

Summary of Regression Model

Model	B	SE	Beta	t	Sig.
Perfectionistic	.186	.088	.146	2.106	.037**
Brand C	.450	.067	.376	6.698	.000***
Price-value C	-.114	.098	-.116	-1.597	.111
Novelty-variety C	-.148	.077	-.141	-2.564	.042**
Impulsive	.071	.066	.074	.659	.942
Confused by over choice	-.127	.056	-.125	-2.243	.026**
Habitual-Store Loyal	-.166	.063	-.134	1.753	.049**
Recreational Shopping C	.039	.062	.041	.523	.671
Incentive C	-.79	.053	-.082	-.795	.130
Recommendation C	.035	.053	.037	.499	.196
Fulfillment C	-.036	.051	-.039	-.486	.176

Dependent Variable: Loyalty
Adjust R Square (R^2): 0.341
*Note ** p<0.05, *** p<0.01*

Regression result is provided in Figure 4-2. Looking at the specific relationships, Brand Consciousness Style (β= 0.142, p< 0.01) emerged as the most influential style; Confused by Over-Choice Style (β= -.125, p< 0.05), Perfectionism Consciousness Style (β= 0.146, p< 0.05), Variety Consciousness Style (β= -0.141, p< 0.05), and Habitual Style also have a significant impact on the dependent construct. However, this result implies that the relationship between the decision-making styles and loyalty was rather weak because a beta coefficient of .11 is far from being critical. In addition, many researchers argue that coefficients below .3 are not meaningful looking at (Tabachnick et al., 2001). It is assumed that one possible reason could be that loyalty was measured in rather general terms rather than for a specific type of OTA (e.g. Expedia).

```
Perfectionistic, High-
quality Conscious
Consumer
                          .146**

Brand Conscious
Consumer              .376***

Novelty-Variety       -.141**                OTA Loyalty
Conscious Consumer

Confused-by Over-     -.125**
Choice Consumer
                       -.134**

Habitual-Store Loyal
```
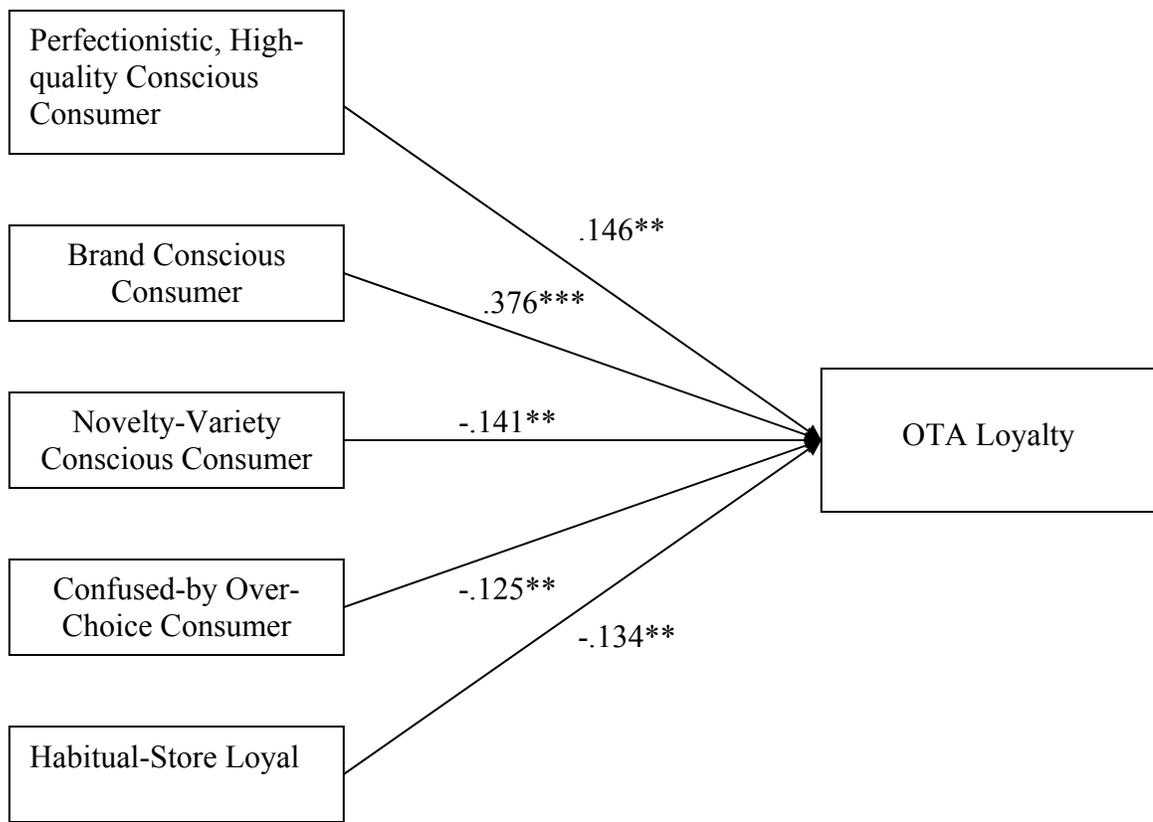
** significant at the 0.05 level

***significant at the 0.01 level

Figure 4-2 Determinants of Loyalty

The findings show that consumers who search the very best quality and national brand in products and have favorite brands and stores are more likely to have loyalty toward OTAs. In contrast, consumers who are less likely to gain excitement and pleasure from seeking out new things and who perceive that there are too many brands and stores from which to choose and consumers who are less likely experience information overload in the market are also more likely to have loyalty toward OTAs.

This study supported the proposed hypothesis that online decision-making styles influence loyalty in e-commerce, particularly, in terms of perfectionism consciousness style, brand consciousness style, variety consciousness style, habitual styles, confused by over-choice style. Although, interestingly, no significant relationship was found for other online decision-making styles, this result indicates the strength of the relationship between online decision-making styles and loyalty.

Conclusions

Whereas many researchers have studied loyalty (in an e-commerce setting) in non-tourism areas, the conceptualization and empirical validation of loyalty in an e-tourism context has not been addressed. In particular, despite fast growth in the number of online travel shoppers, the relationship between the decision-making styles of online travel shoppers and their loyalty to a particular online tourism booking site has not been studied.

Currently, OTAs come with their own set of challenges because consumers can compare competing products and services from other tourism sites. As the number of tourism Web sites continues to grow at an explosive rate, attracting and retaining consumers is becoming increasingly critical for the survival of online retailers and marketers. Thus, loyalty is recognized as a key path to profitability since loyalty relates to an enhanced resistance to competitive messages, lower selling costs, a decrease in

price sensitivity, and an increase in favorable word-of-mouth reputation (Dick & Basu, 1994; Reichheld & Schefter, 2000).

Previous studies indicate that creating loyalty depends on meeting the needs of the customer better than competitors do (Oliver, 1999; Reynolds & Beatty, 1999) and the level of loyalty achieved is partially dependent on the characteristics of the target consumers (Sharp & Sharp, 1985). However, despite rapid growth in the number of online travel shoppers, no study has addressed whether online travel shoppers' decision-making styles influence their loyalty toward a certain type of site. Accordingly, this study investigated the relationship between travel shoppers' online decision-making styles and their loyalty toward OTAs. To empirically examine this, multiple regression was employed in this study.

The results of this study revealed that some decision-making styles are positively related to loyalty while others are negatively related to loyalty. In particular, three decision-making styles were (brand consciousness style, perfectionism consciousness style, and habitual style) positively related to loyalty while only variety-novelty consciousness style and confused by over-choice style was negatively related to loyalty. Overall, as the findings of the study show that five out of eleven online decision-making styles have a statistically significant influence on loyalty, this study support the proposed model that consumer's online decision-making styles influence their loyalty toward OTAs.

Taken together, these results offer the following theoretical and managerial implications. From the theoretical point of view, first, the current study may contribute,

to some extent, to extending the loyalty theory by empirically testing the roles of consumer decision-making styles. This study empirically showed that consumer decision-making styles could be an underlying system, which guides customers to be loyal to an online store. Overall, the theoretical framework proposed in this study further provides fertile ground for future research examining these relationships.

The results of the current study provide important managerial insights to marketers of OTAs. First, the current study identified consumers with the three types of decision-making styles such as perfectionism consciousness style, brand consciousness style, and habitual style are more likely to exhibit OTA loyalty whereas consumers with variety consciousness style and confused by over-choice style are less loyal. The first managerial strategy, not only for OTAs, but also for other e-stores, is to examine and understand their target audiences' decision-making styles to implement successful marketing strategies. Second, the findings of the study imply that in particular, marketers need to consider developing new products and Web site design to attract variety and novelty seekers; they should provide high quality products and services, while increasing their brand name recognition; managers have to identify and understand their habitual shopping style to sustain them; they have to provide enough and diverse information and product for the consumers who have a confused by over-choice shopping styles to attract them.   Third, broadly, personalization and customization in terms of addressing individual differences in shopping styles might be necessary to reinforce loyalty of online customers. Finally, positioning strategy emphasizes that

shopping at an online store can enhance the target audience's individual habitual patterns, which in turn determine a consumer's approach to making decisions.

This study has some limitations that should be addressed by future research. First, this study is limited by its data collection approach. Panels are made up of individuals who are pre-recruited to participate in surveys. Inducing these people to take a survey often requires the use of an incentive. Otherwise, they would not sign up to participate in the panel. This may imply that such individuals have very specific decision-making styles in common. However, the descriptive results show that the range for each decision-making style's score measured in this study reflects an appropriate amount of variation. Thus, the issue that the sample contains only specific decision-making styles does not need to be addressed.

Second, future research should explicate the interrelationships between decision-making styles and loyalty in the offline context to provide fertile ground in the both decision-making styles and loyalty research. Finally, although this study showed that consumer online decision-making styles influence loyalty, the nature of the relationships between online decision-making styles and loyalty needs further examination. The current study showed that only five types of online decision-making styles influence OTA loyalty. More thorough investigations in different contexts will add to understanding the effects of online decision-making styles on loyalty.

CHAPTER V

SUMMARY AND CONCLUSIONS

Consumer behavior researchers have spent a great deal of time and energy to better understand the factors that influence consumer purchasing behavior. As one of the factors, decision-making style has received a significant amount of attention from consumer behavior researchers over the years. In the consumer behavior literature, most studies assume that all consumers approach shopping with certain decision-making traits that combine to form a consumer's decision-making style (Walsh, Wayne-Mitchell, & Hennig-Thurau, 2001).

Previous studies have considered decision-making style as a personality trait with a lasting effect on consumer decision making (Sproles & Kendall, 1986). However, some studies have suggested that decision-making styles are influenced by product type (Bauer et al., 2006), and provide support for a study that asserted that decision-making styles are not consistent and can vary across contexts and decision situations (Scott & Bruce, 1995). This dissertation argued that, although consumer decision making styles have been investigated extensively, relatively little effort has been invested in conceptualizations of decision-making styles. Furthermore, research has so far failed to identify whether consumer decision-making styles are truly personality trait based or context-dependent.

To clearly conceptualize decision-making styles, this dissertation challenged the theory that decision-making styles are personality trait based and investigated whether decision-making styles are influenced by contextual factors. Through a comprehensive and close look at previous and relevant literature, this dissertation examined three issues related to decision-making styles.

Study 1 investigated whether consumer decision-making styles depend on channel type. In addition, it explored new types of decision-making styles which better represent differences between current consumer needs and preferences. Study 2 attempted to test whether product characteristics influence consumer decision-making styles in an online context. At the same time, this study also examined whether there is any interaction effect between product type and involvement regarding online decision-making styles. Study 3 examined whether consumer online decision-making styles influence loyalty toward online travel agencies.

Summary of Study 1

In the process of reviewing the literature, first, it was realized that there has been little investigation of whether or not decision-making styles are independent from the context of different types of distribution channels. As discussed earlier, past research has already shown that the Internet represents a sufficiently different retail environment and a different atmosphere which may significantly influence the emotions and motivations of shoppers and thereby affect their buying behavior (Menon & Kahn, 2002; Cowles, Peterson, & Merino, 2003). However, despite the rapid growth of online

shopping, there has been little research about whether or not decision-making styles are independent from the context of different types of channels. In addition, there have been limited efforts to understand new consumer decision making styles, although the advance of technology alters consumers' expectations and demands regarding their shopping choices, which will likely affect decision-making styles. Accordingly, Chapter II of this dissertation explored new types of decision-making styles which better represent current consumer needs and preferences regarding shopping choice, and investigated consumers' online and offline decision-making styles to identify whether channel type influences decision-making styles.

Results showed that consumer decision-making styles vary across channel environments and certain types of decision-making styles are more prominent in the context of online shopping rather than offline shopping and vice versa. Results supported previous arguments suggesting that decision-making styles are not personality trait based and can be used across contexts and decision situations (Scott & Bruce, 1995). Results also demonstrated the need to continuously observe consumers' decision-making styles and capture emerging new styles, since this study showed that macro environmental changes in shopping environments might require conceptual changes to better understand the needs and preferences of the new consumer. Future research may need to examine more diverse contexts to generalize this study and support the context-dependency hypothesis, including retesting validity and reliability of the newly proposed styles.

Summary of Study 2

A review of previous literature suggested that little research has focused on whether online decision-making styles vary within the context of different product types. Although recently, some researchers have pointed out that consumers may have different styles across product categories (Sproles & Kendall, 1986; Bauer et al., 2006), few studies provide clear evidence that decision-making styles are influenced by product type. This study also suggested that, although involvement has been shown to influence a number of consumer behavioral outcomes, no attention has been paid to understanding whether product involvement influences the relationship between product type and online decision-making styles. Because of little previous work on online decision making styles in the context of a different type of product, Chapter III sought to investigate whether online decision-making styles are influenced by product type (tangible, standardized products vs. intangible, non-standardized products). At the same time, this study also examined whether there is any interaction effect between product type and involvement regarding online decision-making styles.

In the results of the study, an interaction effect was not found between product type and involvement in terms of online decision making styles, except for recreation decision-making style. Most importantly, the results showed that certain types of online decision-making styles are influenced by product type and provided evidence that consumer online decision-making styles vary across product type. This study also indicates that involvement has an important role in influencing online decision-making

styles.   The results suggest that future research should examine online decision-making

styles in the context of other product types to generalize this study and support the

context-dependency hypothesis.

Summary of Study 3

Finally, a close look at previous research also revealed that no previous research

has systematically examined the relationship between online decision-making styles and

loyalty. Rather than testing whether decision-making styles are influenced by context

factors, this study was an application of the online decision-making style instrument that

was developed in the previous studies. In Chapter IV, a conceptual framework of the

relationship between online decision-making styles and loyalty in an e-commerce setting

was proposed. In particular, it was hypothesized that loyalty toward online travel

agencies was influenced by online decision-making styles.

The results showed that certain online decision-making styles were positively

related to loyalty while others were negatively related to loyalty. Although not all

decision-making styles had an influence on loyalty toward online travel agencies, the

study results indicate that some decision-making styles might keep consumers from

being loyal to online travel agencies when buying specific tourism products online.

Future research should also pay attention to whether or not the conceptual framework

used in this study can be applied to the offline context and in the context of other

products to provide fertile ground for additional research regarding both decision-making styles and loyalty.

Conclusions and Implications of Dissertation

Broadly, this dissertation investigated whether or not consumer decision-making styles are context dependent. To examine this question, Studies 1 and 2 tested whether consumer decision-making styles are influenced by channel and product type. Since the results showed that decision-making styles vary across channel and product types, the findings supported previous studies that consumer decision-making styles are more individual response patterns in a specific decision context rather than personality trait based. Study 3 investigated whether or not consumer online decision-making styles play a significant role in influencing loyalty; it served as an applied study of the online decision-making style instrument developed in the course of this dissertation. As the results of Study 3 show that some online decision-making styles influence OTA loyalty, this research suggests that decision-making style need to be considered in the context of loyalty.

Overall, the dissertation emphasized that decision-making styles are context dependent and supported that decision-making styles are an important factor in understanding consumer purchase behavior, especially online consumer behavior. Theoretically,

- this dissertation sheds light on the under-researched area of online decision-making styles, in particular, the conceptualization of the concept;

- it helps to provide knowledge and variability of the relationship between online decision-making styles and loyalty;

- the studies conducted in the course of this dissertation provide the foundation for future studies that extend the findings reported here for an enhanced understanding of online and offline decision-making styles;

As the findings suggest, individual decision makers may be flexible in terms of their decision-making styles across context factors. The research presented in this dissertation provides several managerial insights for marketers. Specifically,

- marketers need to understand their target consumers' decision-making styles across context factors to improve their strategic marketing activities and develop effective communication to support consumer decisions;

- they need to continuously observe consumers' decision-making styles and capture emerging new styles since the studies show that macro-environmental change in shopping environments might require changes to the developed dimensions;

- marketers can utilize consumer offline and online decision-making styles for segmenting, targeting, and positioning consumers according to the given context.

- personalization and customization in terms of addressing individual differences in shopping styles might be necessary to reinforce loyalty of online customers.

Overall, the results confirm the central premise of the study that context factors influence consumers' online decision-making styles.

The research presented in this dissertation has several limitations. First, the sample used in Study1 consists of undergraduate students only, and Study 2 included only a small number of graduate student respondents. However, one of the primary goals of this study was to test the validity and reliability of an extended consumer decision-making styles inventory rather than to describe a general population of consumers in terms of their decision-making styles. Thus, the study results are valid and useful. Second, only one product category (book) and one product type aspect (tangibility and standardization) was utilized and incorporated in the first two studies. Third, context-dependency was only measured in terms of channel and product type. Thus, future studies should examine decision-making styles that are differentiated based on other types of contextual factors, to not only develop a better framework of consumer online decision-making styles, but also to support and generalize the findings of this dissertation.

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APPENDIX A

STUDY I

(PAPER-BASED QUESTIONANNIRE)

Decision-Making Styles Study (A)

You have been asked to participate in a research study investigating consumer decision-making styles. You were selected as one of 350 participants because you are an undergraduate student at Texas A&M. The purpose of this study is to know more about your decision-making processes in online and offline shopping contexts. If you agree to participate in this study, you will be asked to complete a questionnaire, approximately ten minutes in length. In return for your effort, all participants will be entered in a drawing for a $100 cash prize.

The information you provide via the questionnaire will be kept strictly confidential and used only for academic purposes. A separate email address sign up sheet will be provided and will not be linked to your answers. No identifiers of any sort linking you to the study will be included in the report, which may be published at a later date. Research records obtained during this study will be stored securely and only Young A Park and her advisor will have access to the records. All questionnaires will be destroyed after three years. Your participation is completely voluntary and you may elect to withdraw from completing this survey at any time. Should you choose to participate, you are free to refuse to answer any of the questions that may make you uncomfortable.

This research study has been reviewed by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

By responding to this survey, you acknowledge that you understand the following: your participation is voluntary; you can elect to withdraw at any time; there are no positive or negative benefits from responding to this survey; the survey will be used for student research; and the researcher has your consent to publish materials obtained from the research.

If you have any further questions, you may contact me, Young A Park (yapark@neo.tamu.edu) or my advisor Dr. Ulrike Gretzel (ugretzel@tamu.edu).

By filling out this questionnaire you consent to participate in this study.

1. How do you shop for **BOOKS ONLINE?**

If you have never purchased books online, please skip to Question1-47.

CIRCLE ONE NUMBER for each statement to indicate the extent to which you agree or disagree.

In general, how would you describe yourself when you purchase 'Books' ONLINE (such as novels, non-fiction, etc.)?	Strongly Disagree			Neutral		Strongly Agree	
1. I make a special effort to choose the very best quality.	1	2	3	4	5	6	7
2. In general, I usually try to buy the best overall quality.	1	2	3	4	5	6	7
3. When purchasing books, I try to get the very best or perfect choice.	1	2	3	4	5	6	7
4. Getting very good quality is very important to me.	1	2	3	4	5	6	7
5. My standards and expectations for books I buy are very high.	1	2	3	4	5	6	7
6. The most advertised Web sites are usually very good choices.	1	2	3	4	5	6	7
7. I prefer buying books from the best selling Web sites.	1	2	3	4	5	6	7
8. Nicely designed and specialty Web sites offer me the best books.	1	2	3	4	5	6	7
9. Well-known branded Web sites are best for me.	1	2	3	4	5	6	7
10. I look carefully to find the best value for my money.	1	2	3	4	5	6	7
11. I carefully watch how much I spend.	1	2	3	4	5	6	7
12. I am conscious about my economic condition when shopping online.	1	2	3	4	5	6	7
13. I always buy books that are useful to me and are of reasonable price.	1	2	3	4	5	6	7
14. I am willing to spend time to compare prices among Web sites in order to buy lower priced books.	1	2	3	4	5	6	7
15. I buy books with the best value for my money.	1	2	3	4	5	6	7
16. It's fun to buy something new and exciting.	1	2	3	4	5	6	7
17. I like to try new options.	1	2	3	4	5	6	7
18. I don't mind buying from Web sites from which I never bought before.	1	2	3	4	5	6	7
19. I should plan my shopping more carefully than I do.	1	2	3	4	5	6	7
20. I am impulsive when purchasing.	1	2	3	4	5	6	7
21. Often I make careless purchases I later wish I had not.	1	2	3	4	5	6	7
22. I do not take time to shop for the best buy.	1	2	3	4	5	6	7
23. I usually buy without hesitation.	1	2	3	4	5	6	7
24. There are so many Web sites to choose from that I often feel confused.	1	2	3	4	5	6	7
25. Sometimes it's hard to choose on which Web sites to shop.	1	2	3	4	5	6	7
26. All the information I get on different books confuses me.	1	2	3	4	5	6	7

Question 1 continued

27.	The more I learn about books, the harder it is to choose the best.	1	2	3	4	5	6	7
28.	I have favorite Web sites from which I buy over and over.	1	2	3	4	5	6	7
29.	Once I find a Web site I like, I stick with it.	1	2	3	4	5	6	7
30.	I go to the same Web site each time I shop.	1	2	3	4	5	6	7
31.	I regularly buy from same Web sites.	1	2	3	4	5	6	7
32.	Online shopping is one of the enjoyable activities in my life.	1	2	3	4	5	6	7
33.	Online shopping is a pleasant activity to me.	1	2	3	4	5	6	7
34.	I enjoy online shopping just for the fun of it.	1	2	3	4	5	6	7
35.	I prefer to take my time when shopping online.	1	2	3	4	5	6	7
36.	When I shop online, I am concerned with whether the site provides special offers.	1	2	3	4	5	6	7
37.	I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	1	2	3	4	5	6	7
38.	I am more attracted to Web sites that offer incentives.	1	2	3	4	5	6	7
39.	I use the advice of other people in making my important decisions.	1	2	3	4	5	6	7
40.	I like to have someone steer me in the right direction when I am faced with important decisions.	1	2	3	4	5	6	7
41.	I often need the assistance of other people when making important decisions.	1	2	3	4	5	6	7
42.	If I have the support of others, it is easier for me to make important decisions.	1	2	3	4	5	6	7
43.	When I shop online, I am concerned about whether the return policy at the Web site is reasonable.	1	2	3	4	5	6	7
44.	I am concerned about whether I get my merchandise quickly.	1	2	3	4	5	6	7
45.	I am concerned about whether transactions at the site are error-free.	1	2	3	4	5	6	7
46.	I am concerned about whether transactions at the site are secure.	1	2	3	4	5	6	7
47.	I am concerned about whether returning items is relatively easy.	1	2	3	4	5	6	7

2. How do you shop for **BOOKS OFFLINE**?

CIRCLE ONE NUMBER for each statement to indicate the extent to which you agree or disagree.

In general, how would you describe yourself when you purchase 'Books' <u>OFFLINE</u> (such as novels, non-fiction, etc.)?	Strongly Disagree			Neutral			Strongly Agree
1. I make a special effort to choose the very best quality.	1	2	3	4	5	6	7
2. In general, I usually try to buy the best overall quality.	1	2	3	4	5	6	7
3. When purchasing books, I try to get the very best or perfect choice.	1	2	3	4	5	6	7
4. Getting very good quality is very important to me.	1	2	3	4	5	6	7
5. My standards and expectations for books I buy are very high.	1	2	3	4	5	6	7
6. The most advertised stores are usually very good choices.	1	2	3	4	5	6	7
7. I prefer buying books from the best selling stores.	1	2	3	4	5	6	7
8. Nicely decorated and specialty stores offer me the best books.	1	2	3	4	5	6	7
9. Well-known branded stores are best for me.	1	2	3	4	5	6	7
10. I look carefully to find the best value for my money.	1	2	3	4	5	6	7
11. I carefully watch how much I spend.	1	2	3	4	5	6	7
12. I am conscious about my economic condition when shopping.	1	2	3	4	5	6	7
13. I always buy books that are useful to me and are of reasonable price.	1	2	3	4	5	6	7
14. I am willing to spend time to compare prices among shops in order to buy some lower priced books.	1	2	3	4	5	6	7
15. I buy books with the best value for my money.	1	2	3	4	5	6	7
16. It's fun to buy something new and exciting.	1	2	3	4	5	6	7
17. I like to try new options.	1	2	3	4	5	6	7
18. I don't mind buying from stores from which I never bought before.	1	2	3	4	5	6	7
19. I should plan my shopping more carefully than I do.	1	2	3	4	5	6	7
20. I am impulsive when purchasing.	1	2	3	4	5	6	7
21. Often I make careless purchases I later wish I had not.	1	2	3	4	5	6	7
22. I do not take time to shop for the best buy.	1	2	3	4	5	6	7
23. I usually buy without hesitation.	1	2	3	4	5	6	7
24. There are so many stores to choose from that I often feel confused.	1	2	3	4	5	6	7
25. Sometimes it's hard to choose which stores to shop.	1	2	3	4	5	6	7
26. All the information I get on different books confuses me.	1	2	3	4	5	6	7
27. The more I learn about books, the harder it is to choose the best.	1	2	3	4	5	6	7

Question 2 continued

	1	2	3	4	5	6	7
28. I have favorite stores from which I buy over and over.	1	2	3	4	5	6	7
29. Once I find a store I like, I stick with it.	1	2	3	4	5	6	7
30. I go to the same store each time I shop.	1	2	3	4	5	6	7
31. I regularly buy from same stores.	1	2	3	4	5	6	7
32. Shopping is one of the enjoyable activities in my life.	1	2	3	4	5	6	7
33. Shopping is a pleasant activity for me.	1	2	3	4	5	6	7
34. I enjoy shopping just for the fun of it.	1	2	3	4	5	6	7
35. I prefer to take my time when shopping.	1	2	3	4	5	6	7
36. When I shop, I am concerned about whether the store provides special offers.	1	2	3	4	5	6	7
37. I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	1	2	3	4	5	6	7
38. I am more attracted to stores that offer incentives.	1	2	3	4	5	6	7
39. I use the advice of other people in making my important decisions	1	2	3	4	5	6	7
40. I like to have someone steer me in the right direction when I am faced with important decisions	1	2	3	4	5	6	7
41. I often need the assistance of other people when making important decisions.	1	2	3	4	5	6	7
42. If I have the support of others, it is easier for me to make important decisions.	1	2	3	4	5	6	7
43. When I shop, I am concerned about whether the return policy at the store is reasonable.	1	2	3	4	5	6	7
44. I am concerned about whether stores will have the product in stock.	1	2	3	4	5	6	7
45. I am concerned about whether transactions at the store are error-free.	1	2	3	4	5	6	7
46. I am concerned about whether transactions at the store are secure.	1	2	3	4	5	6	7
47. I am concerned about whether returning items is relatively easy.	1	2	3	4	5	6	7

3. What is your gender? (Please check one)

☐ Female ☐ Male

4. In what year were you born?

Year of birth: 19_____

5. How would you describe your level of Internet experience?

Beginner 1   2   3   4   5   6   7   Expert

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY!!!!

Note: one questionnaire (A) asked 'online' decision-making styles first and then questions regarding 'offline' decision-making styles followed. The other questionnaire (B) had the opposite order.

APPENDIX B

EXPLORATRY FACTOR ANAYSIS RESUTLS (STUDY 1)

TABLE B1

Offline Decision-Making Styles

Factor Name	Factor Load.	Eigen Value	Variance Expl.
Factor 1-Price-Value Conscious		4.77	10.16%
I look carefully to find the best value for my money.	.84		
I carefully watch how much I spend.	.83		
I am conscious about my economic condition when shopping.	.76		
I always buy books that are useful to me and are of reasonable price.	.81		
I am willing to spend time to compare prices among shops in order to buy some lower priced books.	.74		
I buy books with the best value for my money.	.83		
Factor 2-Perfectionistic		4.33	9.21%
I make a special effort to choose the very best quality.	.92		
In general, I usually try to buy the best overall quality.	.91		
When purchasing books, I try to get the very best or perfect choice.	.83		
Getting very good quality is very important to me.	.91		
My standards and expectations for books I buy are very high.	.84		
Factor 3-Fulfillment Conscious		4.02	8.55%
When I shop, I am concerned about whether the return policy at the store is reasonable.	.75		
I am concerned about whether stores will have the product in stock.	.77		
I am concerned about whether transactions at the store are error-free.	.85		
I am concerned about whether transactions at the store are secure.	.86		
I am concerned about whether returning items is relatively easy.	.86		
Factor 4-Confused by Over-Choice		3.24	6.89%
There are so many stores to choose from that I often feel confused.	.85		
Sometimes it's hard to choose which stores to shop.	.84		
All the information I get on different books confuses me.	.87		
The more I learn about books, the harder it is to choose the best.	.79		
Factor 5-Recreational Shopping Conscious		3.14	6.68%
Shopping is one of the enjoyable activities in my life.	.89		
Shopping is a pleasant activity for me.	.88		
I enjoy shopping just for the fun of it.	.89		
I prefer to take my time when shopping.	.63		

Factor Name	Factor Load.	Eigen Value	Variance Expl.
Factor 6-Recommendation Conscious		**3.14**	**6.67%**
I use the advice of other people in making my important decisions	.79		
I like to have someone steer me in the right direction when I am faced with important decisions	.88		
I often need the assistance of other people when making important decisions.	.82		
If I have the support of others, it is easier for me to make important decisions.	.82		
Factor 7-Brand Conscious		**3.10**	**6.60%**
The most advertised stores are usually very good choices.	.84		
I prefer buying books from the best selling stores.	.88		
Nice and specialty stores offer me the best books.	.74		
Well-known branded stores are best for me.	.85		
Factor 8-Impulsive		**2.98**	**6.34%**
I should plan my shopping more carefully than I do.	.61		
I am impulsive when purchasing.	.77		
Often I make careless purchases I later wish I had not.	.78		
I do not take time to shop for the best buy.	.68		
I usually buy without hesitation.	.71		
Factor 9-Habitual, Store Loyal		**2.87**	**6.10%**
I have favorite stores from which I buy over and over.	.78		
Once I find a store I like, I stick with it.	.81		
I go to the same store each time I shop.	.82		
I regularly buy from the same stores.	.80		
Factor 10-Novelty-Variety Conscious		**2.18**	**4.65%**
It's fun to buy something new and exciting.	.78		
I like to try new options	.79		
I don't mind buying from stores from which I never bought before	.81		
Factor 11-Incentive Conscious		**1.94**	**4.14%**
When I shop, I am concerned about whether the store provides special offers.	.64		
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	.74		
I am more attracted to stores that offer incentives.	.78		
Total			**75.97%**

TABLE B2

Online Decision-Making Styles

Factor Name	Factor Load.	Eigen Value	Variance Expl.
Factor 1-Price-Value Conscious		**5.42**	**11.49%**
I look carefully to find the best value for my money.	.80		
I carefully watch how much I spend.	.86		
I am conscious about my economic condition when shopping online.	.85		
I always buy books that are useful to me and are of reasonable price.	.82		
I am willing to spend time to compare prices among Web sites in order to buy some lower priced books.	.75		
I buy books with the best value for my money.	.84		
Factor 2-Perfectionistic		**4.25**	**9.03%**
I make a special effort to choose the very best quality.	.88		
In general, I usually try to buy the best overall quality.	.90		
When purchasing books, I try to get the very best or perfect choice.	.78		
Getting very good quality is very important to me.	.92		
My standards and expectations for books I buy are very high.	.86		
Factor 3-Recommendation Conscious		**3.55**	**7.56%**
I use the advice of other people in making my important decisions	.83		
I like to have someone steer me in the right direction when I am faced with important decisions	.89		
I often need the assistance of other people when making important decisions.	.86		
If I have the support of others, it is easier for me to make important decisions.	.83		
Factor 4-Confused by Over-Choice		**3.37**	**7.18%**
There are so many Web sites to choose from that I often feel confused.	.84		
Sometimes it's hard to choose which Web sites to shop.	.78		
All the information I get on different books confuses me.	.87		
The more I learn about books, the harder it is to choose the best.	.85		
Factor 5- Recreational Shopping Conscious		**3.23**	**6.86%**
Online Shopping is one of the enjoyable activities in my life.	.89		
Online Shopping is a pleasant activity for me.	.88		
I enjoy online shopping just for the fun of it.	.91		
I prefer to take my time when shopping online.	.54		
Factor 6- Brand Conscious		**3.20**	**6.81%**
The most advertised Web sites are usually very good choices.	.84		
I prefer buying books from the best selling Web sites.	.86		

Factor Name	Factor Load.	Eigen Value	Variance Expl.
Nice and specialty Web sites offer me the best books.	.83		
Well-known branded Web sites are best for me.	.78		
Factor 7- Habitual, Store Loyal		**3.11**	**6.62%**
I have favorite Web sites from which I buy over and over.	.76		
Once I find a Web site I like, I stick with it.	.80		
I go to the same Web site each time I shop.	.80		
I regularly buy from the Web sites.	.62		
Factor 8- Impulsive		**3.10**	**6.60%**
I should plan my shopping more carefully than I do.	.59		
I am impulsive when purchasing.	.78		
Often I make careless purchases I later wish I had not.	.78		
I do not take time to shop for the best buy.	.58		
I usually buy without hesitation.	.77		
Factor 9- Incentive Conscious		**2.60**	**5.52%**
When I shop online, I am concerned about whether the store provides special offers.	.71		
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	.82		
I am more attracted to stores that offer incentives.	.83		
Factor 10- Novelty-Variety Conscious		**2.17**	**4.62%**
It's fun to buy something new and exciting.	.78		
I like to try new options	.85		
I don't mind buying from Web sites from which I never bought before	.62		
Factor 11 – Fulfillment Conscious		**2.10**	**4.43%**
When I shop online, I am concerned about whether the return policy at the store is reasonable.	.67		
I am concerned about whether stores will have the product in stock.	.61		
I am concerned about whether transactions at the site are error-free.	.59		
I am concerned about whether transactions at the site are secure.	.53		
I am concerned about whether returning items is relatively easy.	.56		
Total			**76.73%**

APPENDIX C

STUDY II

(WEB-BASED SURVEY)

Invitation Letter for Web-based Survey

Online Decision-Making Style Study

Dear fellow graduate student,

My name is Young A Park and I am a PhD candidate in the Department of
Recreation, Park & Tourism Sciences at Texas A&M University. As part of my
dissertation research I am conducting a study regarding online decision-making
styles. You were selected as one of 150 participants because you are a graduate
student at a US university. If you choose to participate in the research, you will be
asked questions regarding the way you purchase/reserve certain products online. The
survey will take about 10 minutes to complete.

As a token of appreciation, you will be able to enter your email address at the end of
the survey for a chance to win a **$100 cash prize**.

The findings of this study will be critical for my research. I hope you will be able to
participate. Let me know if you would also like to receive a summary of the results
once the study is completed.

Please follow the below link to the information section for the survey from which you
will be able to access the questionnaire.

Sincerely,
Young A Park

TYPE A
(Consumer Electronics)

Online Decision-making Styles

You have been asked to participate in a research study investigating online decision-making styles. You were selected as one of 150 participants because you are a graduate student at a US university. The survey will take about 10 minutes to complete. Participation in this study is voluntary, and your identity will remain confidential. As a token of appreciation, a '\$100 CASH PRIZE' will be awarded to one lucky winner. You will be asked to enter your email address at the end of the survey if you wish to participate in the drawing.

This research study has been reviewed by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For search-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

Your participation is voluntary; you can elect to withdraw at any time; there are no positive or negative benefits from responding to this survey; the survey will be used for student research; and the researcher has your consent to publish materials obtained from the research.

If you have further question, you can contact me, Young A Park (yapark@neo.tamu.edu) or my advisor Dr. Ulrike Gretzel (ugretzel@tamu.edu).

If you agree with the above, please click on the 'Start Survey' button below to access the survey.

START SURVEY!

POWERED BY zoomerang

Instructions: The following questions are designed to learn more about your experience regarding ONLINE shopping. Please follow the directions for each question.

1. Have you ever purchased **'Consumer Electronics'** (such as audio & video, cameras, cell phones, video games, computers, MP3 players, and iPods) **online**?

☐   Yes   ☐   No

2. How many times have you purchased 'Consumer Electronics' ONLINE in the past 3 years?

☐ Never   ☐ 1-2 times   ☐ 3-4 times   ☐ 5-6 times

☐ 7-8 times   ☐ 9-10 times   ☐ more than 11 times

☐   Other, please specify

3. Please mark the number that indicates your best judgment for each of the following items.

To me, buying **Consumer Electronics** *is...*

important	1	2	3	4	5	6	7	unimportant
boring	1	2	3	4	5	6	7	interesting
relevant	1	2	3	4	5	6	7	irrelevant
exciting	1	2	3	4	5	6	7	unexciting
means nothing	1	2	3	4	5	6	7	means a lot
appealing	1	2	3	4	5	6	7	unappealing
fascinating	1	2	3	4	5	6	7	mundane
worthless	1	2	3	4	5	6	7	valuable
involving	1	2	3	4	5	6	7	uninvolving
not needed	1	2	3	4	5	6	7	needed

4. In general how would you describe yourself when purchasing 'Consumer Electronics' ONLINE.	Strongly Disagree			Neutral		Strongly Agree	
I make a special effort to choose the very best quality consumer electronics.	1	2	3	4	5	6	7
In general, I usually try to buy the best overall quality.	1	2	3	4	5	6	7
When purchasing consumer electronics, I try to get the very best or perfect choice.	1	2	3	4	5	6	7
Getting very good quality is very important to me.	1	2	3	4	5	6	7
My standards and expectations for consumer electronics I buy are very high.	1	2	3	4	5	6	7
The most advertised brands are usually very good choices.	1	2	3	4	5	6	7
I prefer purchasing consumer electronics from the best selling brands.	1	2	3	4	5	6	7
Nicely designed and specialty Web sites offer me the best consumer electronics.	1	2	3	4	5	6	7
Well-known brands are best for me.	1	2	3	4	5	6	7
I look carefully to find the best value for my money.	1	2	3	4	5	6	7
I carefully watch how much I spend.	1	2	3	4	5	6	7
I am conscious about my economic condition when shopping online.	1	2	3	4	5	6	7
I always buy consumer electronics that are useful to me and are of reasonable price.	1	2	3	4	5	6	7
I am willing to spend time to compare prices among Web sites in order to buy lower priced consumer electronics.	1	2	3	4	5	6	7
I buy consumer electronics with the best value for my money.	1	2	3	4	5	6	7
It's fun to buy something new and exciting.	1	2	3	4	5	6	7
I like to try new options.	1	2	3	4	5	6	7
I don't mind buying from Web sites from which I never bought before.	1	2	3	4	5	6	7
I should plan my shopping more carefully than I do.	1	2	3	4	5	6	7
I am impulsive when purchasing.	1	2	3	4	5	6	7
Often I make careless purchases I later wish I had not.	1	2	3	4	5	6	7
I do not take time to shop for the best buy.	1	2	3	4	5	6	7
I usually buy without hesitation.	1	2	3	4	5	6	7
There are so many Web sites to choose from that I often feel confused.	1	2	3	4	5	6	7
Sometimes it's hard to choose on which Web sites to shop.	1	2	3	4	5	6	7
All the information I get on different consumer electronics confuses me.	1	2	3	4	5	6	7
The more I learn about consumer electronics, the harder it is to choose the best.	1	2	3	4	5	6	7

Question 4 continued

I have favorite Web sites from which I buy over and over.	1	2	3	4	5	6	7
Once I find a Web site I like, I stick with it.	1	2	3	4	5	6	7
I go to the same Web site each time I shop.	1	2	3	4	5	6	7
I regularly buy from same Web sites.	1	2	3	4	5	6	7
Online shopping is one of the enjoyable activities in my life.	1	2	3	4	5	6	7
Online shopping is a pleasant activity to me.	1	2	3	4	5	6	7
I enjoy online shopping just for the fun of it.	1	2	3	4	5	6	7
I prefer to take my time when shopping online.	1	2	3	4	5	6	7
When I shop consumer electronics online, I am concerned with whether the site provides special offers.	1	2	3	4	5	6	7
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	1	2	3	4	5	6	7
I am more attracted to Web sites that offer incentives.	1	2	3	4	5	6	7
I use the advice of other people in making my important decisions.	1	2	3	4	5	6	7
I like to have someone steer me in the right direction when I am faced with important decisions.	1	2	3	4	5	6	7
I often need the assistance of other people when making important decisions.	1	2	3	4	5	6	7
If I have the support of others, it is easier for me to make important decisions.	1	2	3	4	5	6	7
When I shop consumer electronics online, I am concerned about whether the return policy at the Web site is reasonable.	1	2	3	4	5	6	7
I am concerned about whether transactions at the site are error-free.	1	2	3	4	5	6	7
I am concerned about whether transactions at the site are secure.	1	2	3	4	5	6	7
I am concerned about whether returning items is relatively easy.	1	2	3	4	5	6	7

5. Gender

☐ Female
☐ Male

6. Age

☐ 18-24   ☐ 25-34

☐ 35-44   ☐ 45-54

☐ 55-64   ☐ 65 or above

7. What is your ethnic background?

☐ Black/African-American   ☐ White

☐ Hispanic   ☐ Asian

☐ Native American/American Indian   ☐ Prefer not to answer

☐ Other, please specify

8. Are you a US citizen?

☐ Yes   ☐ No

9. What is your marital status?

☐ Married   ☐ Single, Never married

☐ Divorced   ☐ Separated

☐ Widowed   ☐ Other

10. How would you describe your level of Internet experience?

| Beginner | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Expert |

11. At which US University do you study?

12. What is your major field of study?

13. If you wish to participate in the drawing a $100 cash prize, please enter your email address.

CLICK SUBMIT below to finish the survey.

Thank you for your time and valuable input!

TYPE B
(Accommodations)

Online Decision-making Styles

You have been asked to participate in a research study investigating online decision-making styles. You were selected as one of 150 participants because you are a graduate student at a US university. The survey will take about 10 minutes to complete. Participation in this study is voluntary, and your identity will remain confidential. As a token of appreciation, a '$100 CASH PRIZE' will be awarded to one lucky winner. You will be asked to enter your email address at the end of the survey if you wish to participate in the drawing.

This research study has been reviewed by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For search-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

Your participation is voluntary; you can elect to withdraw at any time; there are no positive or negative benefits from responding to this survey; the survey will be used for student research; and the researcher has your consent to publish materials obtained from the research.

If you have further question, you can contact me, Young A Park (yapark@neo.tamu.edu) or my advisor Dr. Ulrike Gretzel (ugretzel@tamu.edu).

If you agree with the above, please click on the 'Start Survey' button below to access the survey.

START SURVEY!

POWERED BY zoomerang

The following question is designed to learn more about your experience regarding ONLINE shopping. Please follow the directions for each question.

1. Have you ever booked **'Accommodations'** (such as hotels, motels, inns, and B&Bs) **online** for *pleasure travel* (not including business travel)?

☐   Yes   ☐   No

2. How many times have you booked 'Accommodations' for pleasure travel ONLINE in the past 3 years?

☐ Never   ☐ 1-2 times   ☐ 3-4 times   ☐ 5-6 times

☐ 7-8 times   ☐ 9-10 times   ☐ more than 11 times

☐   Other, please specify

3. Please mark the number that indicates your best judgment for each of the following items.

When you shop for accommodations for PLEASURE TRAVEL online...

*To me, reserving/booking **Accommodations** is...*

important	1	2	3	4	5	6	7	unimportant
boring	1	2	3	4	5	6	7	interesting
relevant	1	2	3	4	5	6	7	irrelevant
exciting	1	2	3	4	5	6	7	unexciting
means nothing	1	2	3	4	5	6	7	means a lot
appealing	1	2	3	4	5	6	7	unappealing
fascinating	1	2	3	4	5	6	7	mundane
worthless	1	2	3	4	5	6	7	valuable
involving	1	2	3	4	5	6	7	uninvolving
not needed	1	2	3	4	5	6	7	needed

4. In general how would you describe yourself when booking 'Accommodations' for pleasure travel ONLINE?	Strongly Disagree			Neutral		Strongly Agree	
I make a special effort to choose the very best quality.	1	2	3	4	5	6	7
In general, I usually try to buy the best overall quality.	1	2	3	4	5	6	7
When booking accommodations, I try to get the very best or perfect choice.	1	2	3	4	5	6	7
Question 4 continued							
Getting very good quality is very important to me.	1	2	3	4	5	6	7
My standards and expectations for accommodations I buy are very high.	1	2	3	4	5	6	7
The most advertised Web sites are usually very good choices.	1	2	3	4	5	6	7
I prefer reserving accommodations from the best selling Web sites.	1	2	3	4	5	6	7
Nicely designed and specialty Web sites offer me the best accommodations.	1	2	3	4	5	6	7
Well-known branded Web sites are best for me.	1	2	3	4	5	6	7
I look carefully to find the best value for my money.	1	2	3	4	5	6	7
I carefully watch how much I spend.	1	2	3	4	5	6	7
I am conscious about my economic condition when shopping online.	1	2	3	4	5	6	7
I always buy accommodations that are useful to me and are of reasonable price.	1	2	3	4	5	6	7
I am willing to spend time to compare prices among Web sites in order to buy lower priced accommodations.	1	2	3	4	5	6	7
I book accommodations with the best value for my money.	1	2	3	4	5	6	7
It's fun to buy something new and exciting.	1	2	3	4	5	6	7
I like to try new options.	1	2	3	4	5	6	7
I don't mind buying from Web sites from which I never bought before.	1	2	3	4	5	6	7
I should plan my shopping more carefully than I do.	1	2	3	4	5	6	7
I am impulsive when purchasing.	1	2	3	4	5	6	7
Often I make careless purchases I later wish I had not.	1	2	3	4	5	6	7
I do not take time to shop for the best buy.	1	2	3	4	5	6	7
I usually buy without hesitation.	1	2	3	4	5	6	7
There are so many Web sites to choose from that I often feel confused.	1	2	3	4	5	6	7
Sometimes it's hard to choose on which Web sites to shop.	1	2	3	4	5	6	7
All the information I get on different accommodations confuses me.	1	2	3	4	5	6	7
The more I learn about accommodations, the harder it is to choose the best.	1	2	3	4	5	6	7

Question 4 continued							
I have favorite Web sites from which I buy over and over.	1	2	3	4	5	6	7
Once I find a Web site I like, I stick with it.	1	2	3	4	5	6	7
I go to the same Web site each time I shop.	1	2	3	4	5	6	7
I regularly buy from same Web sites.	1	2	3	4	5	6	7
Online shopping is one of the enjoyable activities in my life.	1	2	3	4	5	6	7
Online shopping is a pleasant activity to me.	1	2	3	4	5	6	7
I enjoy online shopping just for the fun of it.	1	2	3	4	5	6	7
I prefer to take my time when shopping online.	1	2	3	4	5	6	7
When I reserve accommodations online, I am concerned with whether the site provides special offers.	1	2	3	4	5	6	7
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	1	2	3	4	5	6	7
I am more attracted to Web sites that offer incentives.	1	2	3	4	5	6	7
I use the advice of other people in making my important decisions.	1	2	3	4	5	6	7
I like to have someone steer me in the right direction when I am faced with important decisions.	1	2	3	4	5	6	7
I often need the assistance of other people when making important decisions.	1	2	3	4	5	6	7
If I have the support of others, it is easier for me to make important decisions.	1	2	3	4	5	6	7
When I reserve accommodations online, I am concerned about whether I get what I booked on the site.	1	2	3	4	5	6	7
I am concerned about whether transactions at the site are error-free.	1	2	3	4	5	6	7
I am concerned about whether transactions at the site are secure.	1	2	3	4	5	6	7
I am concerned about whether returning items is relatively easy.	1	2	3	4	5	6	7

5. Gender

☐ Female
☐ Male

6. Age

☐ 18-24   ☐ 25-34

☐ 35-44   ☐ 45-54

☐ 55-64   ☐ 65 or above

7. What is your ethnic background?

☐ Black/African-American   ☐ White

☐ Hispanic   ☐ Asian

☐ Native American/American Indian   ☐ Prefer not to answer

☐ Other, please specify

8. Are you a US citizen?

☐   Yes   ☐   No

9. What is your marital status?

☐ Married   ☐ Single, Never married
☐ Divorced   ☐ Separated
☐ Widowed   ☐ Other

10. How would you describe your level of Internet experience?

Beginner   1   2   3   4   5   6   7   Expert

11. At which US University do you study?

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[                                    ]
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12. What is your major field of study?

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[                                    ]
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13. If you wish to participate in the drawing a $100 cash prize, please enter your email address.

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[                                    ]
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CLICK SUBMIT below to finish the survey.

Thank you for your time and valuable input!

APPENDIX D

STUDY III

(ONLINE PANNEL SURVEY)

Online Decision-making Styles

You have been selected as one of 350 participants for a research study regarding online decision-making styles. The survey will take about 15 minutes to complete. You will be asked to answer questions about online travel planning. Participation in this study is voluntary, and your identity will remain confidential.

This research study has been reviewed by the Institutional Review Board-Human Subjects in Research, Texas A&M University. For search-related problems or questions regarding subjects' rights, you can contact the Institutional Review Board through Ms. Melissa McIlhaney, IRB Program Coordinator, Office of Research Compliance, (979) 458-4067, mcilhaney@tamu.edu.

Your participation is voluntary; you can elect to withdraw at any time; there are no positive or negative benefits from responding to this survey; the survey will be used for research; and the researcher has your consent to publish materials obtained from the research.

If you have further question, you can contact me, Young A Park (yapark@neo.tamu.edu) or my advisor Dr. Ulrike Gretzel (ugretzel@tamu.edu).

If you agree with the above, please click on the link below to access the survey.

START SURVEY!

POWERED BY
zoomerang

Instructions: The following section is designed to learn more about your experience regarding the way you plan 'pleasure travel' (not including business travel). Please answer to the best of your knowledge.

1. In the past 3 years, how many international and domestic **'overnight pleasure trips'** have you taken? (Please check the one option which reflects your best estimate).

☐ None ☐ 1-6 trips

☐ 7-12 trips ☐ More than 12 trips

2. How many of these trips involved travel by **air**? (Please check the one option which reflects your best estimate).

☐ None ☐ 1-6 trips

☐ 7-12 trips ☐ More than 12 trips

3. Have you ever purchased a tourism product (e.g. an airline ticket, hotel reservation, car rental, package tour) through **Online Travel Agencies** for pleasure travel?

* Online travel agency is an e-service vendor that sells travel related products from a number of tourism providers with which they have formed partnerships. (e.g. Expedia, Travelocity, Orbitz, Priceline.com)

☐   Yes ☐   No

>>Your responses to questions 4, 5, & 6 should add up to **100%**!

EXAMPLE:
50% (online travel agencies)+40%(supplier Web sites)+10%(other) = 100%

4. What percentage (%) of all tourism products you purchased online for pleasure travel in the past 3 years did you purchase through **'Online Travel Agencies'**? (Please provide your best estimate).

☐ 1-10 %   ☐ 11-20 %

☐ 21-30 %   ☐ 31-40 %

☐ 41-50 %   ☐ 51-60 %

☐ 61-70 %   ☐ 71-80 %

☐ 81-90 %   ☐ 91-100 %

5. What percentage (%) of all tourism products you purchased online for pleasure travel in the past 3 years did you purchase through **'Supplier Web Sites'**? (Please provide your best estimate).

*Supplier Web sites sell travel related products of a specific provider such as a hotel property and airline. (e.g. Continental.com, Hyatt.com, Sheraton.com, etc.)

☐ 1-10 %   ☐ 11-20 %

☐ 21-30 %   ☐ 31-40 %

☐ 41-50 %   ☐ 51-60 %

☐ 61-70 %   ☐ 71-80 %

☐ 81-90 %   ☐ 91-100 %

6. What percentage (%) of all tourism products you purchased online for pleasure travel in the past 3 years did you purchase through **'Other Sites'** (neither online travel agencies nor supplier Web sites)? (Please provide your best estimate).

☐ 1-10 %   ☐ 11-20 %

☐ 21-30 %   ☐ 31-40 %

☐ 41-50 %   ☐ 51-60 %

☐ 61-70 %   ☐ 71-80 %

☐ 81-90 %   ☐ 91-100 %

7. Please specify which other sites (neither online travel agencies nor supplier Web sites) you used. Type in NONE if you did not use other sites.

*How likely are you to use the following Web sites to purchase **'Airline Tickets'** for your next pleasure trip?*

8. Online Travel Agencies

  extremely unlikely   1   2   3   4   5   6   7   extremely likely

9. Supplier Web Sites

  extremely unlikely   1   2   3   4   5   6   7   extremely likely

*How likely are you to use the following Web sites to purchase **'Accommodations'** for your next pleasure trip?*

10. Online Travel Agencies

  extremely unlikely   1   2   3   4   5   6   7   extremely likely

11. Supplier Web Sites

  extremely unlikely   1   2   3   4   5   6   7   extremely likely

*How likely are you to use the following Web sites to rent a **'Car'** for your next pleasure trip?*

12. Online Travel Agencies

  extremely unlikely   1   2   3   4   5   6   7   extremely likely

13. Supplier Web Sites

  extremely unlikely   1   2   3   4   5   6   7   extremely likely

*Instructions: The following questions are designed to learn more about your **experience regarding ONLINE shopping**. Please follow the directions for each question.*

15. In general how would you describe yourself when purchasing 'Airline Tickets' ONLINE.	Strongly Disagree			Neutral		Strongly Agree	
When booking airline tickets, I try to get the very best or perfect choice.	1	2	3	4	5	6	7
I make a special effort to choose the very best flight option.	1	2	3	4	5	6	7
Getting the best flight option is very important to me.	1	2	3	4	5	6	7
The most advertised Web sites are usually very good choices.	1	2	3	4	5	6	7
I prefer buying airline tickets from the best selling Web sites.	1	2	3	4	5	6	7
Nicely designed and specialty Web sites offer me the best accommodations.	1	2	3	4	5	6	7
Well-known branded Web sites are best for me.	1	2	3	4	5	6	7
I look carefully to find the best value for my money.	1	2	3	4	5	6	7
I carefully watch how much I spend.	1	2	3	4	5	6	7
I am conscious about my economic condition when shopping online.	1	2	3	4	5	6	7
I always buy airline tickets that are useful to me and are of reasonable price.	1	2	3	4	5	6	7
I am willing to spend time to compare prices among Web sites in order to buy some lower priced airline tickets.	1	2	3	4	5	6	7
I buy airline tickets with the best value for my money.	1	2	3	4	5	6	7
It's fun to buy something new and exciting.	1	2	3	4	5	6	7
I like to try new options.	1	2	3	4	5	6	7
I don't mind buying from Web sites from which I never bought before.	1	2	3	4	5	6	7
I should plan my shopping more carefully than I do.	1	2	3	4	5	6	7
I am impulsive when purchasing.	1	2	3	4	5	6	7
Often I make careless purchases I later wish I had not.	1	2	3	4	5	6	7
I do not take time to shop for the best buy.	1	2	3	4	5	6	7
I usually buy without hesitation.	1	2	3	4	5	6	7
There are so many Web sites to choose from that I often feel confused.	1	2	3	4	5	6	7
Sometimes it's hard to choose on which Web sites to shop.	1	2	3	4	5	6	7
All the information I get on different accommodations confuses me.	1	2	3	4	5	6	7
The more I learn about accommodations, the harder it is to choose the best.	1	2	3	4	5	6	7
I have favorite Web sites from which I buy over and over.	1	2	3	4	5	6	7
Once I find a Web site I like, I stick with it.	1	2	3	4	5	6	7

Question 15 continued

I go to the same Web site each time I shop.	1	2	3	4	5	6	7
I regularly buy from same Web sites.	1	2	3	4	5	6	7
Online shopping is one of the enjoyable activities in my life.	1	2	3	4	5	6	7
Online shopping is a pleasant activity to me.	1	2	3	4	5	6	7
I enjoy online shopping just for the fun of it.	1	2	3	4	5	6	7
I prefer to take my time when shopping online.	1	2	3	4	5	6	7
When I reserve accommodations online, I am concerned with whether the site provides special offers.	1	2	3	4	5	6	7
I look for incentives such as discounts, coupons, sweepstakes, cash rebates, etc.	1	2	3	4	5	6	7
I am more attracted to Web sites that offer incentives.	1	2	3	4	5	6	7
I use the advice of other people in making my important decisions.	1	2	3	4	5	6	7
I like to have someone steer me in the right direction when I am faced with important decisions.	1	2	3	4	5	6	7
I often need the assistance of other people when making important decisions.	1	2	3	4	5	6	7
If I have the support of others, it is easier for me to make important decisions.	1	2	3	4	5	6	7
When I shop for airline tickets online, I am concerned about whether I receive a confirmation of my purchase quickly.	1	2	3	4	5	6	7
I am concerned about whether the cancellation policy is reasonable.	1	2	3	4	5	6	7
I am concerned about whether transactions at the site are error-free.	1	2	3	4	5	6	7
I am concerned about whether transactions at the site are secure.	1	2	3	4	5	6	7

16. Gender

☐ Female
☐ Male

17. Age

☐ 18-24   ☐ 25-34

☐ 35-44   ☐ 45-54

☐ 55-64   ☐ 65 or above

18. What is your marital status?

☐ Married ☐ Single, Never married

☐ Divorced ☐ Separated

☐ Widowed ☐ Other

19. 11. How would you describe your level of Internet experience?

Beginner 1 2 3 4 5 6 7 Expert

20. What is your ethnic background?

☐ Black/African-American ☐ White

☐ Hispanic ☐ Asian

☐ Native American/American Indian ☐ Prefer not to answer

☐ Other, please specify

21. Are you a US citizen?

☐ Yes ☐ No

22. What is your education level? (Please check one)

☐ Less than high school   ☐ Completed high school

☐ Some college, not competed   ☐ Completed college

☐ Post graduate work started or completed ☐ Other

23. What was your annual total household income (from all sources) before taxes for the year 2006 (please check one).

☐ Less than $20, 000

☐ $20,000 to $29,999

☐ $30,000 to $49,999

☐ $50,000 to $74,999

☐ $75,000 to $99,999

☐ $100,000 and above

CLICK SUBMIT below to finish the survey.

Thank you for your time and valuable input!

VITA

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M.S. 1998   Department of Marketing, Catholic University of Daegu
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Publications

Park, Y., & Gretzel, U. (2007). Key Determinants of Successful Web based Destination
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