

DEVELOPMENT OF A TRAVELERS' INFORMATION SEARCH BEHAVIOR MODEL

by

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## **Development of a Travelers' Information Search Behavior Model**

Dogan Gursoy

(ABSTRACT)

In the dynamic global environment of today, understanding how travelers acquire information is important for marketing management decisions (Srinivasan 1990; Wilkie and Dickson 1985). For destination marketing managers, understanding information search behavior of travelers is crucial for designing effective marketing communication campaigns because information search represents the primary stage at which marketing can provide information and influence travelers' vacation decisions. Therefore, conceptual and empirical examinations of tourist information search behavior have a long tradition in tourism marketing literature (Etzel and Wahlers, 1985; Fodness and Murray, 1997, 1998, 1999; Perdue, 1985; Schul and Crompton, 1983; Snepenger and Snepenger 1993; Woodside and Ronkainen, 1980).

Even though several studies examined travelers information search behavior and the factors that are likely to affect it, they all examined travelers' prior product knowledge as a uni-dimensional construct, most often referred to as destination familiarity or previous trip experiences (Woodside and Ronkainen, 1980). However, consumer behavior literature suggests that the prior product knowledge is not a uni-dimensional construct (Alba and Hutchinson). Alba and Hutchinson (1987) propose that prior product knowledge has two major components, familiarity and expertise, and cannot be measured by a single indicator. In addition, in tourism, little research has been done on the factors that are likely to influence travelers' prior product knowledge and, therefore, their information search behavior. The purpose of this study is to examine travelers' information search behavior by studying the effects of travelers' familiarity

and expertise on their information search behavior and identifying the factors that are likely to influence travelers' familiarity and expertise and their information search behavior.

A travelers' information search behavior model and a measurement instrument to assess the constructs of the model were designed for the use of this study. The model proposed that the type of information search (internal and/or external) that is likely to be utilized will be influenced by travelers' familiarity and expertise. In addition, travelers' involvement, learning, prior visits and cost of information search are proposed to influence travelers' familiarity and their information search behavior.

Even though a very complex travelers' information search behavior model was proposed, only the effects of travelers' prior product knowledge (familiarity and expertise) on travelers' information search behavior were empirically tested due to the complex nature of the model. First the proposed measurement scales were pretested on 224 consumers. After making sure that proposed measures of each construct were valid and reliable, a survey of 470 consumers of travel/tourism services who reside in Virginia was conducted. Structural Equation Modeling (i.e., LISREL) analysis was performed to test the fit of the model.

Results of the study confirmed that travelers' prior product knowledge has two components, familiarity and expertise, and expertise is a function of familiarity. Both familiarity and expertise affect travelers' information search behavior. While the effect of familiarity on internal search is positive and on external search is negative, the effect of expertise on internal search is negative and on external search is positive. The study identified a U-shaped relationship

between travelers' prior product knowledge and external information search. At early stages of learning (low familiarity), travelers are likely to rely on external information sources to make their vacation decisions. As their prior product knowledge (familiarity) increases they tend to make their vacation decisions based on what is in their memory, therefore, reliance on external information sources decreases. However, as they learn more (become experts), they realize that they need more detailed information to make their vacation decisions. As a result, they start searching for additional external information to make their vacation decisions.

## **DEDICATION**

This dissertation is dedicated to my parents, Ismail and Fatma Gursoy. Their inspirations and encouragements made the completion of my doctoral possible.

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## **CHAPTER I - INTRODUCTION**

The purpose of this dissertation is to propose a theoretical model that attempts to identify the factors that are likely to influence travelers' information search behavior and explains how the proposed theoretical model is tested. The study addresses the level of travelers' prior product knowledge (familiarity and expertise) and its influences on travelers' information search behavior. The study also examines the factors that are likely to influence travelers' prior product knowledge (familiarity and expertise) with tourism services and products. The domain of the study is the hospitality and tourism industry. Specifically, the information search behavior of North American travelers to domestic and international destinations is examined.

In this chapter, the research problem and the relevance of the study are specified. The theoretical framework is discussed and the proposed theoretical model that serves as the basis for the study is presented.

### **Statement of the Problem**

Most hospitality and tourism products are purchased, consumed and evaluated in the form of services such as vacation trips. The production, consumption and evaluation of services differ from those of goods in three fundamental ways (Zeithaml, Parasuraman and Berry, 1990). Therefore, the way travelers search for information and the importance they place on it is likely to be significantly different from the way consumers search for information to purchase durable goods and the importance they place on it. First, services are mostly intangible. That is, they are

not physical objects, rather they are performances and experiences. Second, they are heterogeneous. In other words, they differ substantially from producer to producer. Third, they are inseparable. Purchase and consumption of services occur at the same time. Therefore, the purchase process of services is likely to be different from the purchase process of durable goods. For example, the consumer, in reality, purchases and consumes most services at different locations than where s/he lives (Sirakaya, Mclelland and Uysal, 1996). The decision making process used to purchase the tourism product takes much longer than for many other products such as a television sets. In addition, most of the time, the consumer does not get any tangible return for his/her investment, except maybe souvenirs and a receipt. Also, the consumer deals with a high-perceived risk because of high personal investment of time, effort and money (Teare 1992). Consequently, the consumer is likely to be more involved in information search for tourism product purchases than many other product purchases. Consumers are likely to plan purchase of tourism products through savings over a longer time period than many other product purchases (Moutinho, 1987) due to the high perceived risk involved in the purchase.

Conceptual and empirical examinations of tourist information search behavior have a long tradition in tourism marketing literature (Etzel and Wahlers, 1985; Fodness and Murray 1997, 1998, 1999; Perdue, 1985; Schul and Crompton 1983; Snepenger and Snepenger 1993; Woodside and Ronkainen, 1980). One of the most commonly examined factors that is likely to influence travelers' information search behavior and decision-making process is their prior product knowledge (familiarity and expertise) about the destination. Despite the recognized importance of prior product knowledge (familiarity and expertise) on travelers' decision- making and information search process, tourism researchers have been treating prior product knowledge

as a uni-dimensional construct, most often referred to as destination familiarity or previous trip experiences (Woodside and Ronkainen, 1980). This construct is mostly operationalized by measuring the number of previous trips taken to a particular destination. Although, the number of previous trips taken to a certain destination is an important indicator of familiarity with the destination, it fails to capture travelers' total prior product knowledge about the destination. This single indicator does not account for the prior product knowledge gained about the destination through different sources other than previous trips taken to the destination such as reading guidebooks, talking to friends and relatives, etc. Indeed, prior trip experience is only one of the indicators of the traveler's familiarity with the destination and that familiarity itself is only one of the dimensions of prior product knowledge. In order to expand the concept of tourist information search behavior, in this study, prior product knowledge is treated as a multi-dimensional construct having two components, familiarity and expertise. Familiarity comes before expertise due to the fact that you have to be familiar before you can be expert (Alba and Hutchinson 1987).

It is important to identify the factors that are likely to influence travelers' familiarity and expertise and, therefore, travelers' information search behavior prior to making a purchase. Identification of those factors may enable destination marketers to develop better communication and targeting strategies. Review of the consumer behavior and tourism literature revealed that previous visits, travelers' involvement, learning and cost of information search are likely to influence travelers' prior product knowledge (familiarity and expertise) of destinations and the way they search for information, internally and/or externally (Alba and Hutchinson 1987; Brucks 1985; Celsi and Olson 1988; Etzel and Wahlers, 1985; Fodness and Murray, 1997, 1998; Perdue,

1985; Schul and Crompton, 1983; Snepenger and Snepenger 1993; Vogt and Fesenmaier, 1998; Woodside and Ronkainen, 1980).

The previous visits to a destination construct is defined, for the purpose of this study, as the number of visits to a destination, the amount of time and money spent and the number of activities participated in at the destination. As the number of visits, amount of time and money spent and the number of activities in which travelers participated in increase, travelers are likely to gain more knowledge about the destination. Therefore, the previous visits construct is likely to influence their familiarity and expertise with the destination and their information search behavior.

Involvement can be defined as a psychological state of motivation, arousal, or interest between an individual and an activity or product. (Zaichkowsky 1985). If a traveler is highly involved with travel and tourism activities, s/he is likely to be more knowledgeable about travel and tourism goods and services than a traveler whose involvement is mediocre or low. A highly involved traveler is also likely to utilize different information sources than a traveler who is low in involvement.

The way consumers learn product information is likely to influence the amount of information they gather about the product and the sources they utilize. If a consumer learns the product information through intentional learning, a consumer is more likely to remember the product information and, therefore, has better prior product knowledge. On the other hand, if learning occurs through incidental learning, s/he is not likely to pay much attention to incoming

information and the impact of incidental learning on product knowledge is likely to be minimal. However, in some instances, incidental learning may trigger a need that a consumer may have and, therefore, may result in higher level of learning, thus affecting subsequent purchasing and or searching information (Nelson 1984).

The cost of information search is another factor that is likely to influence prior product knowledge (familiarity and expertise) and the information sources utilized. It is defined, for the purpose of this study, as the amount of time spent and financial costs incurred to acquire the information and the cognitive effort required to analyze the information. The relationships between cost of information search and prior product knowledge (familiarity and expertise) and information sources utilization are likely to be inverse because consumers are likely to gather information for later and/or pre-purchase use as long as they feel that the benefits of acquiring information outweigh the cost of information (Stigler, 1961).

### **Background of the Problem**

Most of the studies of travelers' information search behavior followed one of the two most influential theoretical frameworks proposed to enhance the understanding of tourists' information search behavior (Fodness and Murray 1997). The first theoretical framework, the "strategic" model, was proposed by Snepenger, Meged, Snelling and Worrall (1990) and defines information search strategies as the combination of information sources used. The second theoretical framework, the "contingency" model, defines information search in terms of

individual characteristics, such as travel specific lifestyles, effort such as amount of time spent, previous trip experiences, the number of sources used, situational influences, product characteristics, and search outcomes (Schul and Crompton 1983; Fodness and Murray 1999).

The contingency model was first proposed by Schul and Crompton (1983) and later expanded by Fodness and Murray (1999) to include situational factors and product characteristics. In the first contingency model, prior product knowledge is measured by a single indicator: previous visits to a destination. However, review of consumer behavior literature suggests that prior product knowledge is not a uni-dimensional construct (Alba and Hutchinson 1997). Alba and Hutchinson (1987) propose that prior product knowledge has two major components: familiarity and expertise, and cannot be measured by a single indicator. Familiarity is a prerequisite for expertise because familiarity represents the early stages of learning and expertise represents the later stages of learning. Therefore, as familiarity increases, expertise increases too (Alba and Hutchinson 1987).

In addition to familiarity and expertise, cost of information search is likely to influence travelers' familiarity and expertise and their information search behavior because travelers are likely to search for the information as long as they feel that the benefits gained from the information search outweigh the cost of information search (Vogt and Fesenmaier 1998). However, tourism researchers have examined the cost of information search as either financial cost (Vogt and Fesenmaier 1998) or cost of time and effort (Fodness and Murray 1999). Fodness and Murray (1999) examined the influence of cost of time and effort on travelers' information search behaviors. They stated that in routine problem solving situations, travelers spend less time

and effort on external information search than in extended problem solving situations. However, they operationalized the time and effort spent on external information search by a single indicator: “pre-trip planning period”. By using a single indicator to measure the time and effort spent on external information search, they implicitly assumed that effort and time are synonymous in the context of information search behavior. Therefore, they only measured one dimension of cost of information search behavior.

The cost-benefit framework and the cost of information theory indicate that the cost of information search is a multi-dimensional construct and time spent on the information search is only one dimension of the cost (Bettman, Johnson and Payne 1991; Johnson and Payne 1985; Stigler 1961). The cost of information search also includes cognitive effort. Therefore, the time and effort dimension of cost of information search by itself fails to capture the total cost. The economics of information theory dictates that search will occur as long as consumers feel that the benefits of acquiring information outweigh the financial cost (Stigler, 1961). Therefore, to capture the total cost, all three dimensions of cost of information search should be measured. In this study, all three dimensions of cost information search will be measured to assess the influence of cost of information search on travelers’ familiarity and expertise and their information search behavior.

It is also important to identify the factors that are likely to influence travelers’ prior product knowledge (familiarity and expertise). Since travelers’ prior product knowledge (familiarity and expertise) was measured by a single indicator by tourism researchers, antecedents of prior product knowledge have not been systematically examined. This study

attempts to identify the factors that are likely to have the most influence on travelers' familiarity and expertise. These factors are previous visit, travelers' involvement, learning and the cost of information search (Alba and Hutchinson, 1987; Brucks, 1985; Celsi and Olson 1988; Etzel and Wahlers, 1985; Fodness and Murray, 1997, 1998; Perdue, 1985; Schul and Crompton, 1983; Snepenger and Snepenger 1993; Vogt and Fesenmaier, 1998; Woodside and Ronkainen, 1980).

### **Research Questions**

The specific research questions generated from the above statement of the problem that this research addresses are:

#### **Research Question 1:**

What is the influence of travelers' familiarity on their expertise?

#### **Research Question 2:**

What is the influence of travelers' familiarity and expertise on their information search behavior?

### **Research Question 3:**

What is the influence of travelers' utilization of internal information search on their utilization of external information search?

### **Theoretical Background of the Problem**

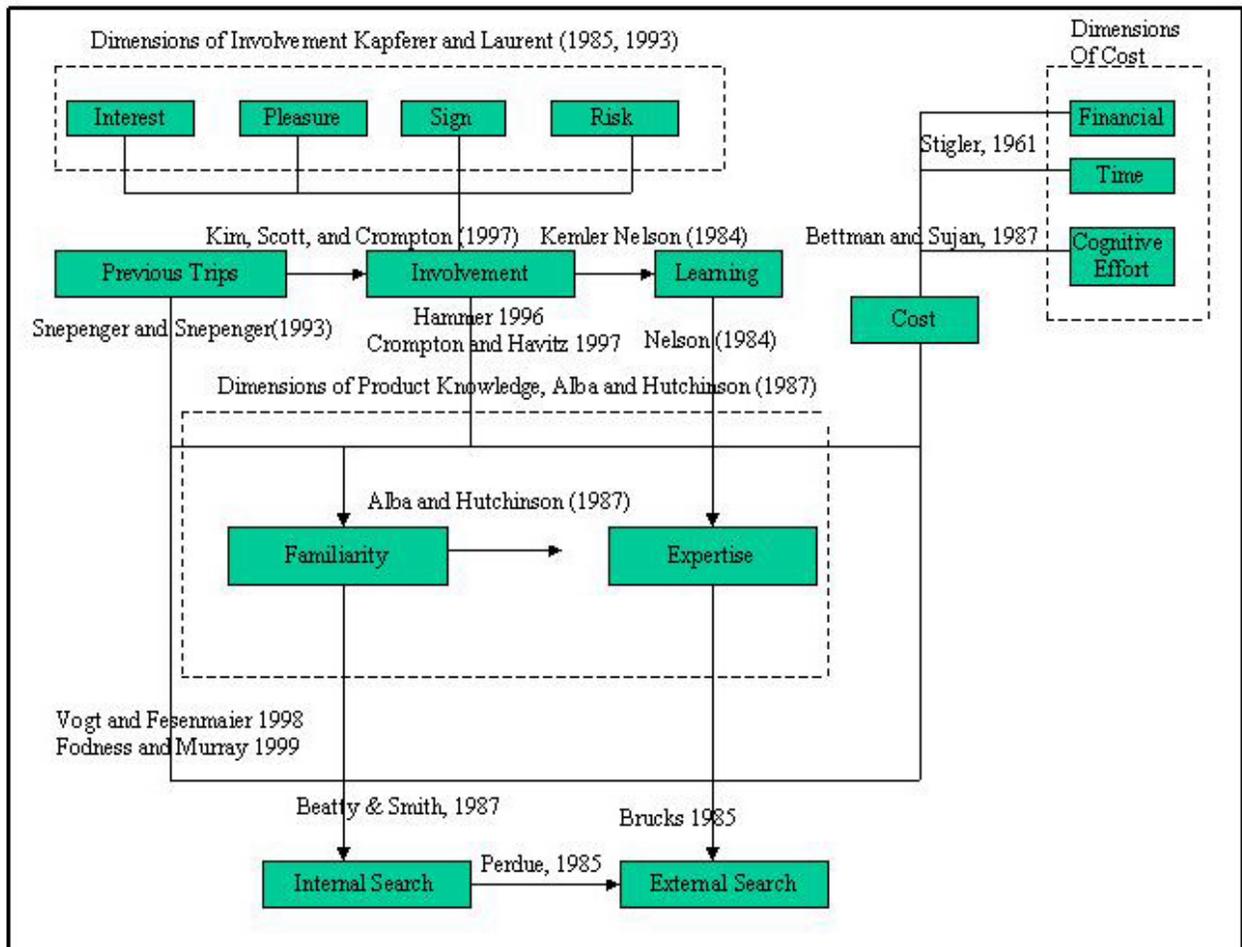
The broad paradigm that encompasses the research questions is travelers' information search behavior. More specifically, the boundary for this study are the influences of previous visits, consumer's involvement with the product, learning and the cost of information search on consumer's familiarity and expertise and on consumer's information search behavior, and the influences of familiarity and expertise on consumer's information search behavior.

Figure 1.1 represents the theoretical framework for this study. The framework is drawn from the relevant literature in the field of tourism, and consumer behavior. The framework depicts how previous visits influence consumer involvement and how consumer involvement influences learning. The framework also depicts how previous trips, consumer involvement, learning and cost of search influence the prior product knowledge (familiarity and expertise) traveler may have and their information search behavior. Additionally, the framework illustrates the relationships between two components of prior product knowledge; familiarity and expertise.

The explanation of the framework first addresses the prior product knowledge (familiarity and expertise) construct and its influence on traveler's information search behavior.

Second, it addresses the factors (previous visits, involvement, learning and cost of information search) that are likely to have the most impact on travelers' familiarity and expertise and on their information search behavior. It also addresses the influence of previous visits on involvement and influence of involvement on learning.

**Figure 1.1**  
**Theoretical Framework for the Study**



## **Prior Product Knowledge**

Prior product knowledge in the theoretical framework is presented by two components; familiarity and expertise within the broken line box labeled “dimensions of prior product knowledge”.

The multi-dimensional prior product knowledge construct utilized in the theoretical framework was initially developed by Alba and Hutchinson (1987) in order to better define and understand the consumers prior product knowledge and its influences on various consumer decision making and information search processes. As depicted in the framework, familiarity comes before expertise and it is a prerequisite for expertise. One cannot become expert before becoming familiar due to the fact that familiarity represent early stages of learning and expertise represents latter stages of learning. (Alba and Hutchinson 1987; Hasner and Zacks 1979, 1986; Welford 1976;).

Even though the multi-dimensional prior product knowledge construct was proposed in 1987, it has not been applied to travelers’ decision-making and choice processes. This study apply the multi-dimensional prior product knowledge construct (familiarity and expertise) to travelers’ information search behavior and examine the usefulness of the multi-dimensional prior product knowledge construct in understanding travelers’ information search behavior.

## **Previous Visits**

Cognitive development theory describes how previous visits to a destination can influence information search behavior, preferences and recreation choice behavior. It suggests that as consumers gain experiences through previous visits, they also gain knowledge about given destination or activities and their internal cognitive representations of the destinations or settings become more complex (Williams, Schreyer and Knopf 1990). Kim, Scott and Crompton (1997) suggest that previous visits are likely to influence involvement with the product category and activities. As the number of trips of a traveler increases to a specific destination, a traveler is more likely to be involved with that destination compared to a traveler with fewer past experience and fewer or no previous visits.

## **Involvement**

Involvement in the theoretical framework is presented by four dimensions (i.e., personal interest, pleasure value, sign value and risk) within the broken line box labeled “dimensions of involvement”. Each dimension of involvement represents a different type of involvement.

Kapferer and Laurent (1985, 1993) developed an involvement scale with four dimensions to better define and measure Consumer Involvement Profiles (CIP). The first dimension of CIP, personal interest, refers to the personal interest a person has in a product category and its personal meaning or importance for the individual. The pleasure value dimension refers to the products ability to provide pleasure and enjoyment. The sign value dimension refers to the degree to which the product expresses the person’s self. The risk dimension refers to the perceived importance of the potential negative consequences associated with a poor choice of the

product and the perceived probability of making such a poor choice. These four dimensions of involvement have become one of the most widely used measures of involvement. Therefore, four dimensions of involvement are used in this study to assess the influence of involvement on travelers' familiarity and expertise and on their information search behavior.

### **Learning**

Learning in the theoretical model represents how consumer knowledge is acquired. Nelson (1994) suggests that the way that the product information was acquired may influence the level of prior product knowledge gained. If the product information is acquired through incidental learning such as incidental exposure to advertising, consumers are not likely to process incoming information in detail other than spontaneous object identification unless they are highly involved with the product (Nelson 1984). Therefore, consumers are likely to gain very little prior product knowledge through incidental learning and it is likely to have minimal effect on building prior product knowledge. On the other hand, if information is acquired from experiences that explicitly involve intentional learning, consumers are likely to process incoming information in detail and, therefore, increase their prior knowledge with the product (Nelson 1984). If the consumer is highly involved with the product category, it is likely that the consumer will be involved in an ongoing information search, which may lead to a higher prior knowledge (familiarity and expertise) with the product category.

### **Cost of Information Search**

Cost of information search in the theoretical framework is presented by three dimensions (i.e., financial cost, time spent and cognitive effort required) within the broken line box labeled

“dimensions of cost”. Each dimension of cost represents a different perspective of cost. Financial cost represents the amount of money spent to acquire the necessary information. Time spent refers to the amount of time required for information search. Effort refers to the amount of cognitive effort required to process the information. These three dimensions of cost of information search are used in this study to assess the influence of cost of information search on familiarity and expertise, and on information search behavior.

The first dimension of the proposed cost of information search construct, financial cost, was first proposed by the Stigler (1961) in the economics of information theory, and it was discussed in several tourism studies (Fodness and Murray, 1997, 1998, 1999; Schul and Crompton, 1983; Vogt and Fesenmaier 1988; Woodside and Ronkainen, 1980). The other two dimensions of the cost of information search, time spent, and effort required, are mostly utilized in consumer behavior studies conducted mostly in laboratory conditions (Bettman and Sujana 1987) and examined by tourism researchers (Fodness and Murray, 1997, 1998, 1999; Vogt and Fesenmaier 1988).

### **Internal Search**

The internal information search construct in the theoretical model represents the retrieval of knowledge from memory (Engel, Blackwell and Miniard 1995). When consumers realize that they have an information need, first they try to retrieve the information from their memory, in other words, first, they conduct an internal information search. If the internal information search provides sufficient information regarding a product or a trip decision, then external information search is obviously unnecessary (Beatty and Smith 1987). Whether travelers rely solely on

internal information search will heavily depend on the perceived adequacy or perceived quality of their existing knowledge. If a traveler is confident that s/he knows enough about a destination, s/he may not utilize any of the available external information sources. This perceived self-confidence may affect the utilization of external information sources (Brucks, 1985).

### **External Information Search**

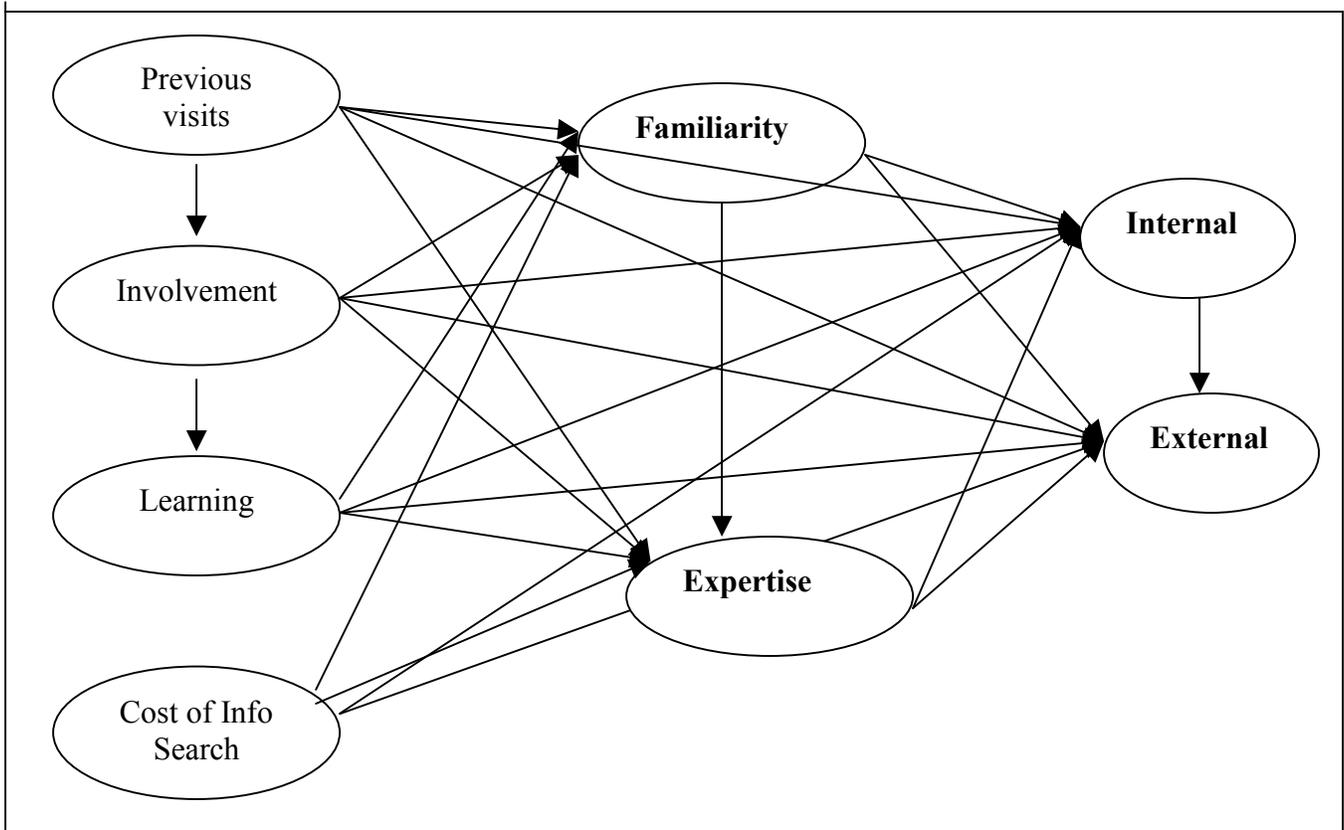
The external information search construct in the theoretical model represents the motivated acquisition of information from the environment (Engel, Blackwell and Miniard 1995). When the internal information search proves inadequate, the travelers are likely to decide to collect additional information from external sources.

### **Proposed Model**

Figure 1.2 represents the proposed theoretical information search model. The model proposes that the type of information search (internal and/or external) that is likely to be utilized is influenced by travelers' prior product knowledge (familiarity and expertise), previous visits, involvement, learning and the cost of the information search. It is proposed that travelers are likely to rely on internal information search more than external search if they possess high familiarity and expertise. The cost of information search is proposed to influence level of internal and external search because as the cost of search increases, it is likely that travelers may utilize internal information search rather than external search to minimize the cost of search (Marmorstein, Grewal and Fiske 1992). Travelers who are highly involved with the destination are likely to utilize more information search than travelers who are low in involvement.

Travelers who learn information through intentional learning are more likely to rely on internal information than external information. Travelers who have been to the destination several times are more likely to utilize more internal search than external search.

**Figure 1.2**  
**Proposed Travelers' Information Search Model**



Travelers' familiarity and expertise (prior product knowledge) are likely to be influenced by previous visits to the destination, involvement, learning and cost of information search. If the traveler has been to the destination before, s/he is likely to have more familiarity and expertise on the destination than a traveler who has never been to the destination. The level of involvement

is likely to have positive effect on familiarity and expertise due to the fact that if the traveler is highly involved with the product s/he is more likely to remember the product information. Familiarity and expertise are likely to be influenced by learning because if a traveler learns the information through intentional learning, s/he is likely to pay more attention to incoming information than a traveler who learns through incidental learning. Therefore, the level of attention a traveler pays to incoming information and how the information was learned is likely to influence familiarity and expertise. The relationship between cost of information and familiarity and expertise is likely to be negative due the fact that the cost of search limits the amount of prior product knowledge gathered.

Travelers' involvement is proposed to be influenced by travelers' previous visits to the destination. The influence of previous visits on travelers' involvement is proposed to be positive. Travelers' involvement is proposed to positively influence travelers' learning. If a traveler is highly involved with the product category, the traveler is likely to pay more attention to the incoming information and learning is more likely to be intentional.

### **Organization of the Study**

Chapter I presented the overview of the study and included the statement of the problem, theoretical background of the problem, the research questions, the theoretical framework of the study, and the theoretical model that is basis of the study. In Chapter II, a review of the relevant literature is presented. The background literature addressing prior visits, involvement, learning, prior product knowledge, and internal and external information search are discussed.

Additionally, the hypotheses to be tested are presented. Chapter III provides a summary of research hypotheses, research design and methodology. The sampling procedure employed and the instrumentation and scaling are also presented in this chapter.

## **CHAPTER II – REVIEW OF THE RELATED LITERATURE**

### **Introduction**

This chapter reviews the literature relevant to the study of traveler's information search behavior. This chapter also presents the full theoretical model with the hypotheses established by the theoretical framework of the study (Figure 1.1) to be empirically tested.

The first section presents the literature relevant to consumer's information behavior. It serves as a background behind the research questions addressed by the study. Section two presents literature that deals with travelers' previous visits. This section mainly focuses on the literature from the tourism and leisure and recreation fields. Section three examines consumers' involvement with products by integrating literature from the tourism, leisure and recreation and consumer behavior fields. Section four examines learning and its influence on prior product knowledge and on the search strategies utilized by travelers. The prior product knowledge concept (based on Alba and Hutchinson's [1987] recommendations) is examined in section five. This section presents the literature from the field of consumer behavior and tourism related to prior product knowledge and its components: familiarity and expertise. The sixth section examines the internal and external information search strategies utilized by travelers, and discusses shortcomings of information search literature in the tourism field.

## **Information Search Behavior**

Consumer information search has been one of the most enduring literature streams in consumer research (Beatty and Smith 1987). Marketing and consumer behavior researchers have been examining consumer's pre-purchase information seeking behavior since at least 1917 (e.g., Copeland 1917), and even today most consumer information processing and decision making models include pre-purchase information search as one of the key components (e.g. Bettman 1979a; Bettman, Johnson and Payne 1991; Engel, Blackwell and Miniard 1993; Howard and Sheth 1969; Olshavsky 1985). Like the consumer behavior and marketing fields, conceptual and empirical examination of the information search behavior have a long tradition in tourism literature (Etzel and Wahlers, 1985; Fodness and Murray, 1997, 1998, 1999; Perdue, 1985; Raitz and Dakhil, 1989; Schul and Crompton, 1983; Snepenger and Snepenger 1993; Woodside and Ronkainen, 1980).

Past research in the area of information search has focused on developing typologies of consumer information search strategies using nearly 60 variables that are likely to influence external information search (Srinivasan and Ratchford 1991). These typologies often include aspects of the environment (e.g., difficulty of the choice task, number of alternatives, complexity of the alternatives), situational variables (e.g., previous satisfaction, time constraints, perceived risk, composition of traveling party), consumer characteristics (education, prior product knowledge, involvement, family life cycle, socio-economic status) (Schmidt and Spreng 1996) and product characteristics (e.g., purpose of the trip, mode of travel) (Fodness and Murray 1998, 1999). Even though several researchers concluded that information search behavior can be

conceptualized as a series of interrelated behaviors, there has been only a few attempts to model the interrelationships among these factors. Notable exceptions are Maute and Foresster (1991), Moorthy, Ratchford and Talukdar (1997), Punj and Staelin (1983) and Srinivasan and Ratchford (1991) in the field of consumer behavior and marketing and Vogt and Fesenmaier (1998) and Fodness and Murray (1999) in the field of tourism

There have been three major theoretical streams of consumer information search literature (Schmidt and Spreng 1996; Srinivasan 1990) in the consumer behavior and marketing fields. The first is the psychological/motivational approach, which incorporates the individual, the product class, and the task related variables such as beliefs and attitudes (Beatty and Smith 1987; Duncan and Olshavsky 1982) and involvement (Beatty and Smith 1987). The second is the economics approach, which uses the cost-benefit framework to study information search. The economic theory of search states that consumers weight the cost and benefits of search when making search decisions. The third one is the consumer information processing approach which focuses on memory and cognitive information processing theory.

Most of the studies of travelers' information search behavior followed one of the two most influential theoretical frameworks proposed to enhance the understanding of tourists' information search behavior (Fodness and Murray 1997). The first theoretical framework, the "strategic" model, was proposed by Snepenger et al. (1990) and defines information search strategies as the combination of information sources used. The second theoretical framework, the "contingency" model, defines information search in terms of individual characteristics, effort, the

number of sources used, situational influences, product characteristics, and search outcomes (Schul and Crompton 1983; Fodness and Murray 1999).

### **Strategic Model**

Snepenger et al. (1990) define search strategy as “ the combination of information sources used by a travel party” to plan trips. Several studies examined information search strategies utilized by travelers. The findings of these studies suggested that travelers tend to use four broad external information sources when planning their trips. These are: (1) family and friends, (2) destination specific literature, (3) media, and (4) travel consultants (Woodside and Ronkainen 1980, Snepenger and Snepenger 1993). However, much of the work that has operationalized information search using the strategic model has considered only those travelers who used a single, specific source, such as travel agents, to plan their trips (Fodness and Murray, 1997; Gitelson and Purdue 1987; Howard and Gitelson 1989; Kendall and Booms 1989).

As the findings of the previous studies indicate, the strategic model deals with the influence of socio-demographic characteristics of travelers on their utilization of available external information sources (Snepenger et al. 1990). The main focus of the strategic model is the number and combination of information sources utilized by travelers. The strategic model does not help us to understand why travelers utilize those external information sources and ignore the others. The strategic model is not concerned with the factors (except for demographics) that may affect a traveler’s utilization of available external information sources. For example, Gitelson and Purdue (1987) evaluated the effectiveness of welcome centers as an information source and Howard and Gitelson (1989) compared users and nonusers of state

welcome centers. Kendall and Booms (1989) studied consumer perception of travel agencies. Woodside and Ronkainen (1980) compared users of three different information sources; self-planners, motor club users, and travel agent users. Snepenger et al. (1990) compared a segment of single information source users (users of travel agents) against a segment of tourists who used a combination of a travel agent and other sources and a segment of those who used a combination of sources other than travel agents. All these studies attempted to identify the external information sources utilized by travelers. Some of the studies attempted to differentiate travelers who utilized different external information sources. However, differentiation was only based on socio-demographics.

### **Contingency Model**

Unlike the strategic model, the “contingency” model, defines information search in terms of individual characteristics, such as travel specific lifestyles, effort such as amount of time spent, previous trip experiences, the number of sources used, situational influences, product characteristics, and search outcomes (Schul and Crompton 1983; Fodness and Murray 1999).

The contingency model was first proposed by Schul and Crompton (1983). They proposed that travel-specific lifestyles and individual differences were a better predictor of external search behavior of travelers than sociodemographic variables. They operationalized travel-specific lifestyle by factor analyzing 16 psychographic variables. Their findings supported their proposition that an individual’s travel-specific lifestyle (psychographics) explains a traveler search behaviors better than demographic differences.

The contingency model was later expanded by Fodness and Murray (1999) to include situational factors and product characteristics. They examined the influence of situational factors, product characteristics, tourist characteristics and search outcomes on external information search behavior. Situational influences were identified as nature of decision-making: routine, limited or extended, and composition of travel party. Product characteristic included purpose of trip and mode of travel. Tourist characteristics were identified as family life cycle and socio-economic status. Search outcomes were measured as length of stay, number of destinations visited, number of attractions visited, and travel related expenditures. Their results converged to support the model and its underlying proposition that tourist information search strategies are the result of a dynamic process in which travelers use various types and amounts of information sources to respond to internal and external contingencies.

Both models, strategic and contingency, have certain similarities and differences. Both models examine the influence of the composition of travel party, prior visits to the destination, and the degree of familiarity associated with the destination on external information search behavior. However, the contingency model examines several other factors that are likely to influence the information search behavior of travelers. Even though the contingency model is superior to the strategic model in terms of understanding travelers' external information search behavior, it has several shortcomings such as the definition of prior product knowledge and ignorance of motivational and psychological factors.

The contingency model assumes that travelers who are familiar and/or experts on the destination will approach a product decision through a routine or limited problem solving

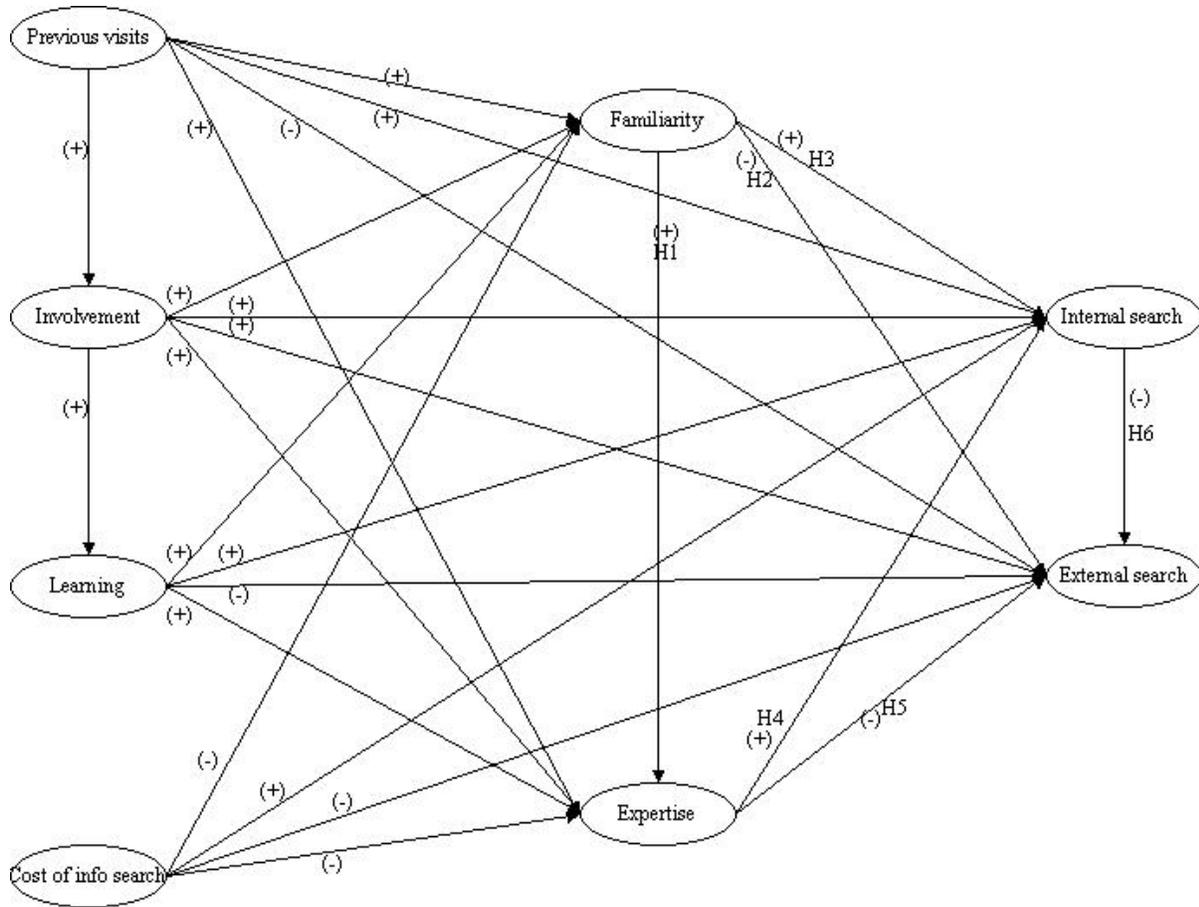
process, and that they are not likely to search for additional information. Their travel decisions are likely to be based on their internal search (Fodness and Murray 1999). In addition, in the contingency model, prior product knowledge and expertise are measured by a single indicator; previous visits to a destination. However, review of the consumer behavior literature suggests that prior product knowledge is not a uni-dimensional construct (Alba and Hutchinson 1987). Alba and Hutchinson (1987) propose that prior knowledge has two major components; familiarity and expertise, and cannot be measured by a single indicator. Contrary to Fodness and Murray's (1999) conclusions, consumer behavior literature also suggests that prior product knowledge may influence the selective search behavior and the depth of analysis (Alba and Huchinson 1987). Knowledgeable consumers are more likely to search for new information prior to making a decision because they are better equipped to understand the meaning of product information compared to novices (Alba and Hutchinson 1987; Duncan and Olshavsky 1982; Johnson and Russo 1984; Punj and Staelin 1982). In addition, knowledgeable consumers are likely to focus on particular product attributes simply because they are aware of the existence of those attributes (Brucks 1985). On the other hand, novice consumers may have a hard time comprehending and evaluating product related information because of their inferior ability to comprehend and evaluate the product related facts (Anderson and Jolson 1980). Because of their limited ability to process the product related information, novices are more likely to sample the opinions of others (Brucks 1985; Furse, Punj and Steward 1984).

The model also ignores the motivational factors that are likely to influence travelers' information search behavior. The direction and intensity of all consumers' actions are affected by motivations of individuals because the function of an individual's motives is to protect, satisfy,

and enhance himself/herself (Kassarjian and Robertson 1968). Consumers acquire information as a strategy of certain risk reduction efforts in the event of identified uncertainty regarding the outcome of an action to protect themselves and to maximize their satisfaction (Bettman 1979b; Murray 1991; Urbany, Dickson and Wilkie 1989). Therefore, traveler's motivations are suspected to influence the intensity and direction of their external information search behavior.

The proposed study takes a different approach and views all those three theoretical approaches of consumer information search literature and two theoretical frameworks of travelers' information search behavior as complementary approaches and frameworks instead of viewing them as polar opposites of each other and attempts to adopt those approaches to study travelers' information search behavior. The proposed model for this study (Figure 2.1) attempts to integrate all three approaches and two frameworks in one model to examine travelers' information search behavior. The previous visits, involvement and learning constructs represent the psychological/motivational approach. The cost of information search construct was developed based on the cost-benefit framework. Finally, the prior product knowledge construct that is utilized in this study represents the consumer information processing approach.

**Figure 2.1**  
**Proposed Travelers' Information Search Behavior Model with Proposed Hypotheses**



**Previous Visits**

A common tenet in tourism and recreation site choice is that individuals engage in tourism and recreational activities at sites where the preferred combinations of physical, social, cultural, and managerial settings are available to produce satisfying experiences (McFarlane, Boxall and Watson 1998). However, several factors can influence preferences or intervene to

affect site selection. One factor associated with destination choice is the number of previous and the amount of previous experience an individual has with the destination and with the activities in the destination. Therefore, previous visits to a destination is one of the most commonly examined factors that is likely to influence travelers' prior product knowledge of the destination, travelers' information search behavior and his/her decision-making process (Etzel and Wahlers 1985; Fodness and Murray 1997, 1998, 1999; Perdue, 1985; Schul and Crompton, 1983; Snepenger and Snepenger 1993; Woodside and Ronkainen 1980). Fodness and Murray (1999) argued that in the case of routine problem solving, travel decisions are made quickly and with little apparent effort due to the fact that for routine trips such as weekend trips to a nearby park or a recreation area or periodic visits to family and friends, pre-purchase information search probably is not necessary if previous visits provide an adequate basis for decision making.

Other researchers concluded that previous visits influence the type of external information sources utilized by travelers. Woodside and Ronkainen (1980) found that only about 20 percent of travelers to South Carolina utilize travel agents, motor clubs and tour operators to help plan their trips. However, they also found that overseas travelers and first time travelers to a destination tend to utilize more external information sources to make their travel plans. Their findings indicated that first time and overseas travelers tend to rely on travel agents and tour operators for information more frequently than domestic and repeat visitors (Woodside and Ronkainen 1980). Sheldon and Mak's (1987) findings supported Woodside and Ronkainen's (1980) findings. Snepenger et al. (1990) studied the information search strategies of first time visitors to Alaska. They found that a large segment of first time visitors (destination naïve travelers) to Alaska utilized travel agents as the main source of external information (Snepencer

et al. 1990). The Fesenmaier and Vogt study (as cited in Snepenger and Snepenger 1993) on the use of information at state welcome centers suggests that a majority of travelers stopping at the welcome centers has not utilized any external information sources prior to their trip. However, they reported that most of these travelers collected information during the trip. These findings do not mean that they did not employ any information search. Most of those travelers who stop at the welcome centers are repeat visitors and they mainly rely on their internal knowledge to plan their trips since those trips are short trips to a known destination and do not have high perceived risk.

Cognitive development theory also describes how previous visits to a destination can influence information search behavior, preferences and recreation choice behavior. It suggests that as consumers gain experiences through previous visits, they also gain knowledge about a given destination or activities and their internal cognitive representations of the destinations or settings become more complex (Williams et al. 1990). Therefore, previous visits to a destination are likely to influence a traveler's level of familiarity and expertise with a destination and the utilization of memory because, to a certain degree, it reflects the amount and type of internal information available to an individual when making destination choices. They are also likely to influence travelers' ability to build more complex cognitive structures because, as the number of previous visits and experience increases, a traveler is likely to develop more complex cognitive structures of the product/destination. For example, a traveler who has been to a certain destination several times is likely to use more attributes to describe site choice decisions and s/he is more likely to describes site attributes with more specificity than a traveler who has never been

to the destination (McFarlane et al. 1998; Schreyer and Beaulieu 1986; Schreyer, Lime and Williams 1984).

Kim et al. (1997) call the previous visits construct used in this study behavioral involvement. Their definition of previous visits (behavioral involvement) included variables such as amount of time spent, frequency of participation, activities participated in and the amount of money spent. They suggest that previous visits are (behavioral involvement) likely to influence the level of involvement with the product category and activities. As the number of previous trips of a traveler (behavioral involvement) increases to a specific destination, the traveler is more likely to be involved with that destination compared to a traveler with fewer or no previous visits. As the level of involvement increases, a traveler is more likely to pay attention to any incoming information about the destination because high involvement means (approximately) personal relevance and importance. People are more likely to pay more attention to incoming information about something that has personal relevance and high importance.

Overall, previous visits are likely to increase travelers' involvement and familiarity with the specific destination/product. They are also likely to influence travelers' utilization of memory and their ability to build more complex cognitive structures because as the number of prior visits and experience increase, a traveler is likely to develop more complex cognitive structures of the product/destination. Therefore, previous visits are likely to influence travelers' expertise. Furthermore, they are likely to influence information search strategies (internal and/or external) that may be utilized by travelers before making a destination/product choice.

## **Involvement**

Involvement is a widely used concept in the consumer literature and within the last decade has found more followers among leisure, recreation and tourism researchers (Dimanche, Havitz and Howard 1991; Havitz and Dimanche 1999; Jamrozy, Backman and Backman 1996; Reid and Crompton 1993; Schuett 1993). In general, involvement has been identified with interest, excitement, and enthusiasm for product class, activities, or information. It has also been related to personal values, ego-involvement, and importance and risk perceptions (Jamrozy et al. 1996). There have been several definitions of involvement. In general, it can be defined as an unobservable state of motivation, arousal or interest toward an activity or associated product (Havitz and Dimanche 1999).

Involvement has been examined under three main perspectives; product-centered, subject-centered and response centered orientations (Finn 1983). A subject-centered perspective is taken in this study to provide a framework for understanding individual consumer behavior and its application in consumer information search behavior because motivation to process information has been conceptualized by most researchers in terms of consumer's involvement with the information stimuli (Celsi and Olson 1988). Researchers have also identified "affective" and "cognitive" types of involvement (Park and Young 1986) and it has been observed that consumers assign both emotional and rational values to products (Zaichkowsky 1987). More recently, researchers have attempted to measure the "hedonic" and "utilitarian" aspects of consumption (Babin, Darden and Griffin 1994; Spangenberg, Voss and Crowley 1997). These

aspects (hedonic, affective, cognitive, utilitarian) of consumption correspond to the archetypal constructs of emotion and reason.

The general view of involvement has been one of "personal relevance" (Zaichkowsky 1985). That is, a consumer's level of involvement with an object, situation, or actions is determined by the degree to which s/he perceives that concept to be personally relevant. The personal relevance of a product is represented by the perceived linkage between an individual's needs, goals and values and their prior product knowledge. To the extent that product characteristics are associated with personal goals and values, the consumer will experience strong feelings of personal relevance or involvement with the product (Celsi and Olson 1988).

While many theoretical models for the conceptualization of involvement have evolved, researchers criticize the lack of agreement on what the term actually means (Cohen 1983; Havitz and Dimanche 1999; Rothschild 1984). Concerns with measurement have resulted in the development of several scales intended to operationalize the involvement construct. However, two of them capture the interest of most researchers. They are Zaichkowsky's (1985) *personal involvement inventory* (PII) and Laurent and Kapferer's (1985) *consumer involvement profile* (CIP). Both scales have been used and tested extensively (Jamrozy et al. 1996). Zaichkowsky's (1985) PII has been supported in its uni-dimensional structure by many researchers and also evidence has been provided for a two factor structure (Broderick and Mueller 1999; McQuarrie and Munson 1987; Mittal 1989). However, Laurent and Kapferer's CIP has received much more attention due to its multi-dimensional structure (Broderick and Mueller 1999; Havitz, Dimanche and Howard 1993; Jamrozy et al. 1996; Kapferer and Laurent 1993; Laurent and Kapferer 1985;

McQuarrie and Munson 1987). Laurent and Kapferer (1985) suggested five dimensions of involvement: the perceived importance of the product (its personal meaning); the pleasure value of the product, its emotional appeal, its ability to provide pleasure and enjoyment; the symbolic or sign value attributed by the consumer to the product, its purchase, or its consumption; the perceived importance of negative consequences in case of poor choice; and the perceived importance of making such a choice. The last two dimensions of Laurent and Kapferer's (1985) CIP has been criticized by leisure and tourism researchers for being too simple to capture the risk involved in recreation and touristic activities (Havitz and Dimanche 1999).

Several researchers have tested different involvement scales in recreation, leisure and tourism contexts (Havitz and Dimanche 1990; Havitz et al. 1993) and determined similar involvement subscale structures to those in the original Laurent and Kapferer's (1985) CIP scale. Since leisure, recreation and tourism researchers suggest that a multi-dimensional involvement scale is more appropriate to measure travelers' involvement profile (Havitz and Dimanche 1990; Havitz et al. 1993; Jamrozy et al. 1996; Reid and Crompton 1993), Laurent and Kapferer's (1985) CIP scale is utilized to measure travelers' involvement in this study with a few modifications. In order to eliminate the weaknesses of Laurent and Kapferer's (1985) CIP scale, risk is measured as having five categories as recommended by Mountinho (1987) and McCleary and Whitney (1994).

### **Dimensions of involvement**

Opinions about the dimensions of involvement are mixed. While most researchers agree that involvement has multi-dimensional structure (Havitz and Dimanche 1990; Havitz et al.

1993; Jamrozy et al. 1996; Laurent and Kapferer 1995; Reid and Crompton 1993), other researchers argue that perceived interest/importance of the product or activity alone represents involvement (Bloch, Sherrell and Ridgeway 1986; Mittal 1989, 1995). Researchers agree that interest/importance is an important facet, and therefore, every current conceptualization of involvement includes this dimension (Havitz and Dimanche 1999).

The general agreement is that involvement has multi-dimensional structure and although there may be other ways in which a product may be relevant to a consumer, four dimensions have been clearly identified and agreed upon in the involvement literature - the "importance" dimension, the "hedonic" (pleasure) dimension, the "sign" dimension and the "risk" dimension (Laurent and Kapferer 1985; McQuarrie and Munson 1987; Zaichkowsky 1985; 1987; 1994).

The importance aspect refers to the importance of a product class to values, emotions and ego (Broderick and Mueller 1999; Higie and Feick 1988). It is likely that a travel decision to go to an international destination, or even to a domestic destination will be an important decision for most leisure travelers because of the distance traveled, amount of money involved and effort spend (Vogt and Fesenmaier 1998). Another indication of the importance of leisure to travel is the time spent planning the vacation. Most leisure travelers to international and domestic destinations spend a considerable amount of time to plan their vacations (Fodness and Murray 1997) and some of them start collecting information even before they select the destination. Therefore, as the importance of travel decision increases, travelers' involvement is likely to increase and this increase is likely to influence travelers' prior product knowledge and the information search behavior (Havitz and Dimanche 1999).

Hedonic (pleasure) involvement refers to the level of arousal causing personal relevance (Laurent and Kapferer 1985; McQuarrie and Munson 1986). The hedonic (pleasure) involvement has obvious intuitive appeal in a leisure and tourism context (Havitz and Dimanche 1999) due to the fact that most travel decisions are highly involving and personally relevant.

The sign dimension refers to the degree to which it expresses the person's self (Laurent and Kapferer 1985). Almost all recreation and tourism researchers embraced conceptualizations which include sign or symbolic value on the basis that the sign involvement is part of the leisure experience for many people whether they are traveling or not (Dimanche and Samdahl 1994; Havitz and Dimanche 1999). However, despite conceptual argument that the sign or symbolic value of recreational and touristic activity is important to many participants, if not integral to many recreation and travel experiences (Dimanche Samdahl 1994), sign items consistently scored low in several studies (e.g., Havitz and Howard 1995) and scored high in others (Havitz, Green and McCarville 1993).

The last, but not the least, dimension of involvement is risk. A choice involves risk when the consequences associated with the decision are uncertain and some outcomes are more desirable than others (Roehl and Fesenmaier 1992). Therefore, consumer behavior involves risk in the sense that any action of a consumer will produce consequences which s/he views with some amount of uncertainty (Bauer 1960). Thus, consumers are likely to develop ways of reducing risk by searching for information that enables them to act with a degree of confidence in situations of uncertainty (Bloch et al. 1986; Zaichkowsky 1985). Laurent and Kapferer viewed

perceived risk as the risk in the decision process of choosing between brands ("mispurchase") in the product class. This corresponds with the notion of "handled" risk (Bettman 1973). The operationalization of risk used in the present study (Jacoby and Kaplan 1972; McQuarrie and Munson 1987) also reflects this same notion of handled risk. Risk is not a cause or an effect of involvement. Instead, risk is an aspect of involvement. It affects search directly just as the other dimensions of involvement (importance, hedonic [pleasure] and sign value) also affects search directly.

The measurement of risk in the existing involvement scales is quite simplistic and fails to capture the risks associated with leisure and travel even as measured by the CIP, which is arguably the most comprehensive standardized involvement scale (Havitz and Dimanche 1999). Risk itself is multi-dimensional. The CIP's two dimensions of risk probability and risk consequence do not adequately address important differences between the various type of risk identified in the literature (Cheron and Ritchie 1982; McCleary and Whitney 1994; Roehl and Fesenmaier 1992).

Tourism researchers have examined risk as having multiple dimensions. Mountinho (1987) reviewed marketing literature and divided tourist perceived risk into five categories based on Jacoby and Kaplan's (1972) framework. These categories of risk are: psychological risk, financial risk, safety risk, social risk and functional risk. McCleary and Whitney (1994) utilized the same five categories of risk when they examined travelers' perceived risk relative to travel to each of the six eastern European countries by using a Delphi technique. In an attempt to investigate the relationship between the risk perceptions of tourist and pleasure travel, Roehl and

Fesenmaier (1992) categorized tourist risk into seven categories: equipment risk, financial risk, physical risk, psychological risk, satisfaction risk, social risk, and time risk. Tsaur, Tzeng and Wang (1997) examined group travelers risk using an Analytic Hierarchy Process to determine the weighting of seven risk evaluation criteria: transportation, law and order, hygiene, accommodation, weather, sightseeing spot and medical support from a fuzzy logic perspective. Because the five categories of risk were utilized by the most researchers, risk, in this study, is examined as having five categories as recommended by Mountinho (1987) and McCleary and Whitney (1994) to eliminate (minimize) the shortcomings of existing involvement scales.

The selection of five categories of risk is also supported by the framework proposed by Jacoby and Kaplan (1972). These five categories of risk are psychological risk, financial risk, safety risk, social risk, and functional risk. Psychological risk is defined as the possibility that a purchase of a vacation will not reflect one's personality and self-image. Financial risk is the possibility that the purchase will not provide value for the money spent. Safety risk refers to the possibility of physical harm. Social risk is defined as the possibility that a purchase of tourism product will affect others opinion about the traveler. Functional risk is that the product may not perform as expected, for example, that selected destination may not provide attraction that were advertised (McCleary and Whitney 1994; Roehl and Fesenmaier 1992).

The level of consumer involvement has been examined on a continuum that has high and low at the opposite ends (Engel and Blackwell 1982). Generally, there is strong support for the relationship between involvement and search behavior (Havitz and Dimanche 1999). Literature suggests that, when making decisions, highly involved individuals will go through an extended

problem solving process: recognizing the problem, actively searching for information, evaluating the alternatives, and then making the purchase decision (Clarke and Russell, 1978). Highly involved individuals are likely to use more criteria (Mitchell 1980); search for more information using available external information sources (Beatty and Smith 1987; Venkatraman 1988); use more information sources (Jamrozny et al. 1996); accept fewer alternatives (Petty and Cacioppo 1981); examine the importance of information (Perdue 1993); process relevant information in detail (Celsi and Olson 1988; Chaiken 1980); produce more product related thoughts and make more product inferences (Celsi and Olson 1988); want to know the strengths and weaknesses of possible alternatives in more detail (Maheswaren and Meyers-Levy 1990); and will form attitudes that are more resistant to change (Petty, Cacioppo and Schumann 1983). In low involvement situations, the consumer does not extensively search for information, and rarely evaluates alternatives or choice before making the purchase decision (Engel and Blackwell 1982). The degree of a consumer's involvement, therefore, has an important impact on information processing and decision making (Celsi and Olsen 1988; Foxall and Bhate 1993; Maheswaren and Meyers-Levy 1990; Mitchell 1980).

Hammer (1997) (as cited in Havitz and Dimanche 1999) found that highly involved recreation participants kept municipal recreation program brochures longer than did less involved participants. Kim et al. (1997) reported that involvement correlated with activity-specific reading behavior among birders. Vogt (1994) (as cited in Havitz and Dimanche 1999) found that involvement with vacations as measured with Zaichkowsky's (1985) Personal Involvement Inventory (PII) was less influential in predicting information source used by

potential travelers than were three types of information needs (functional, innovation, and hedonic).

According to the elaboration likelihood model (Petty and Cacioppo 1983), consumers can follow two routes to persuasion. Central route processing occurs when involved consumers seek product related information intentionally. Therefore, an involved consumer pays more attention to incoming information and thoroughly process the incoming information (Petty, Cacioppo and Schumann 1993). This type of cognitive response to incoming information has been shown to mediate subsequent brand attitudes (Petty and Cacioppo 1983; Petty et al. 1993). Peripheral route processing occurs when an uninvolved customers lack sufficient motivation to pay close attention to incoming information. Therefore, uninvolved customers learn product information as a result of incidental learning; however, they fail to process incoming product information thoroughly. Since uninvolved customers pay less attention and fail to process incoming information thoroughly, the level of knowledge they acquire through incidental learning tends to be lower than customers' knowledge who learn the information through intentional learning.

The preceding discussion led to the conclusion that involvement is a multi-dimensional phenomenon and should be measured with a multi-dimensional instrument. Highly involved consumers are more likely to have higher prior product knowledge since they are likely to read activity and product related magazines, guidebooks etc. and pay attention to incoming information. Therefore, highly involved consumers are likely to have more familiarity with the product and they are likely to remember information better, develop better category structures, and analyze the information in detail and elaborate. Therefore, they are likely to have more

expertise. In addition, level of involvement is likely to influence the number and type of external information sources utilized. Finally, consumers' level of involvement is likely to influence how consumers acquire (learn) the information.

## **Learning**

Learning can be defined as the process by which experience leads to changes in knowledge, attitudes, and/or behavior. Learning has been examined under two major approaches or schools of thought, cognitive approach and behaviorist approach. Under the cognitive approach, learning is reflected by changes in knowledge. Therefore, the focus of researchers who examine learning under this approach is to understand the mental processes that determine how people learn. Under the behavioral approach to learning, researchers are only concerned with observable behaviors. Therefore, mental processes that cannot be observed and must be inferred are ignored under this approach. This study follows the cognitive learning school of thought due to the fact that mental processes include a variety of activities ranging from learning of information to problem solving. From this perspective, much of decision-making can be viewed as cognitive learning in that decisions essentially involve finding an acceptable solution to a problem (Engel, Blackwell and Miniard 1993).

One element that is frequently examined as being important in cognitive learning is intention to learn (Biehal and Chakravarti 1982; Nelson 1984; Postman 1964). People who intend to learn something are more likely to learn and remember it than people who do not specifically try to learn that information. Engel, Blackwell and Miniard (1993) suggest that the

intention to learn is likely to be influenced by the motivational state of the consumer because a consumer's motivational state at the time of exposure to new information will have a considerable influence on what is remembered. Consider, for example, a ski resort advertisement that is viewed by two travelers, one of whom is currently in the market searching for a ski resort. S/he would pay more attention to the advertisement and would more actively process the ad, resulting in greater elaboration. As a result, the consumer who is more motivated (involved) during the message processing will demonstrate greater learning than the less interested one.

What is learned and how it is learned is influenced by consumers' level of involvement with the product category. If the consumer is highly involved with the product category, it is likely that consumer will be involved in an ongoing information search, which may lead to a higher prior knowledge with the product category. If involvement is held constant, experience with a product class may have limited effects on what is learned from the experience unless the consumer consciously attempts to determine attribute relevance. Certainly, most of us have eaten fresh fruit all of our lives, but few of us know how to judge ripeness or overall quality reliably in a store. One potential reason for this apparent lack of learning is that consumers seldom specifically try to learn such skills (Hutchinson and Alba 1991).

The difference in learning depending on the level of motivation can be defined as intentional learning versus incidental learning. Intentional learning occurs when learning is the primary objective during information processing. Consumers may perform this type of intentional learning either with the intent of making subsequent verbal reports to friends, family members, or others, or in anticipation of future choice decisions (Biehal and Chakravarti 1982).

Incidental learning, on the other hand, represents learning that occurs even when learning is not a processing objective. For example, information may be acquired and stored in memory while watching TV (Bettman 1979b). Research indicates that increasing subject motivation (intention) to learn enhances retention of material. The way that the product information was acquired (learned) may influence the level of product knowledge gained. If the product information is acquired through incidental learning such as incidental exposure to advertising, consumers are not likely to process incoming information in detail other than spontaneous object identification unless they are highly involved with the product (Nelson 1984). Therefore, consumers are likely to gain very little knowledge through incidental learning and it is likely to have minimal effect on building prior product knowledge. On the other hand, if information is acquired from experiences that explicitly involve intentional learning, consumers are likely to process incoming information in detail and, therefore, increase their knowledge with the product (Nelson 1984).

Category learning plays an important role in consumer contexts. When a new product class is initially encountered, consumers must form impressions of how the category is structured. They must learn what attributes are important, what prices are to be expected, and the extent to which a category is homogeneous or differentiated (Hutchinson and Alba 1991). Studies show that consumers who utilize intentional learning are more likely to develop better category structures of products and are likely to develop those category structures based on the similarities among products (Nelson 1984). Therefore, brand names (destinations) that offer similar products (attractions) are more likely to be remembered together.

The type of learning is also likely to influence the accuracy of recall. Consumers who learn information through intentional learning are more likely to recall information more accurately than consumers who learn the information through incidental learning (Biehal and Chakravarti 1982). Studies show that consumers who learn information through intentional learning are more likely to recall brand name information better than product attribute information (Johnson and Russo 1984).

Some social –cognition research, however, has shown better recall performance following incidental learning during a judgment task than under intentional learning (Hamilton, Katz and Leirer 1980). In these studies, the incidental learning task required subjects to examine all available information in forming judgments. In other words, subjects processed all of the available information thoroughly. Proponents of the levels-of-processing model have argued that people process information more thoroughly when they are intending to learn it and that the depth of processing, rather than the intention to learn affects the success of learning. When people process material deeply, they may often learn it successfully even when they are not specifically trying to learn it (Postman 1964). In other words, incidental learning may be just as affective as intentional learning if the degree of processing is equal in two situations. The problem with the proposition that degree of processing determines learning is that the idea of processing is a vague notion that is difficult to define or measure in precise terms (Baddeley 1978).

In short, intentional learning leads to a higher level of product familiarity and expertise through better categorization and better recall. In addition, the type of learning, incidental or intentional, is likely to be influenced by consumers' involvement with the product category.

### **Cost of Information Search**

Consumers make numerous decisions everyday to achieve certain purposes or to accomplish some goals including which external information sources to utilize when information acquisition is necessary to make a consumption decision. The direction and intensity of all these decisions are affected by motivations of individuals because the function of an individual's motives is to protect, satisfy, and enhance himself/herself (Kassarjian and Robertson, 1968). Generally, it is believed that consumers tend to acquire information as a strategy of certain risk reduction efforts in the events of identified uncertainty regarding the outcome of an action (McCleary and Whitney 1994) and in the events of identified discrepancy between external information and prior product knowledge to protect themselves and to maximize their satisfaction (Bettman, 1979b; Locander and Hermann 1979; Mayo and Jarvis, 1981; Roehl and Fesenmaier, 1992; Urbany et al, 1989). However, consumers' information search behavior is likely to be influenced by the perceived cost of information search. Consumers are likely to search for information as long as they believe that the benefits of acquiring information outweigh the cost of information search as indicated in "the economics of information" theory (Stigler, 1961).

Tourism researchers have examined the cost of information search as either financial cost (Vogt and Fesenmaier 1998) or cost of time and effort (Fodness and Murray 1999). Vogt and Fesenmaier (1988) examined the cost of information search under the utility dimension of information search. They argued that cost and benefit values can be assigned to each search transaction and search will occur as long as consumers feel that the benefits of obtaining information outweigh the “financial cost”. However, when they operationalized the utility of search construct, they only measured the benefits of information search such as finding bargains and getting good deals. They failed to measure the financial cost of information search. Fodness and Murray (1999) also examined the cost of information search in the context of information search. They argued that in routine problem solving situations, travelers spend less time and effort on external information search than in extended problem solving situations. However, they operationalized the cost of external information search by a single indicator: “pre-trip planning period.”

“The economics of information theory”, one of the major theories dealing with determinants of consumer information search, was first proposed by economist George Stigler in 1961. Stigler (1961) assumed that markets are characterized by a frequency distribution of prices. No single buyer (or seller) in such markets has complete information about this distribution. In order to obtain product and price information the buyer has to undertake search activity at some cost. Search activity is assumed to render benefits to the consumer in terms of lower prices or higher product quality. The greater the dispersion of prices in the market, the greater will be the expected savings from a given search effort. Search is assumed to render decreasing marginal returns, with the benefits of search decreasing as investment in search

increases. Rational consumers are assumed to search for price/product information to the point where the marginal benefits are equal to the marginal costs of search.

The total cost associated with the employment of a given information search strategy can be partitioned into three separate components; time spend, financial cost and effort required. Time spend (invested) in search is often considered to be the single most important cost of search (Stigler 1961). Stigler assumes an increasing marginal cost of search, with search becoming more expensive as the investment in search increases.

The cost of search is not equal for all consumers because time is more costly for consumers with a higher opportunity cost of time (income or wage rate). Therefore, the opportunity cost of time is higher for consumers who have higher income than consumers with lower income (Avery 1996). It is commonly accepted that opportunity cost affects the extent of consumers' information search behavior (Avery 1996; Marmorstein et al. (1992); Stigler 1961; Urbany 1986). Generally, the opportunity cost of time is measured by wages or income (Bryant 1988; Stigler 1961). However, Marmorstein et al. (1992) argues that wages or income alone may not measure opportunity cost correctly if a consumer receives satisfaction or other benefits from information search for price-comparison shopping. Some consumers enjoy collecting information about the products that they have interest in while shopping or performing other activities (Beatty and Smith 1987). Many consumers may value the information acquired because it enables them to reduce uncertainty (Locander and Hermann, 1979; Mayo and Jarvis, 1981; McCleary and Whitney 1994; Roehl and Fesenmaier, 1992) and also, it enables them to serve as both opinion leaders and sources of information for their acquaintances (Bloch et al. 1986; Marmorstein et al. 1992). Therefore, the time spent on collecting information may not

viewed as a pure loss of leisure time and a consumer's wage rate may be an incomplete proxy for the opportunity cost of continued search. Marmorstein et al. (1992) suggest a new measure of the value of time called "subjective value of time" to measure the opportunity cost.

Another element of cost is the monetary outlay on search activity (such as transportation, phone call) (Avery 1996; Stigler 1961). As suggested by Snepenger and Snepenger (1993), travelers are likely to use four broad external information sources when planning their trips; family and friends, destination specific literature, media, and travel consultants. To gather information from these sources, travelers may need to make a few telephone calls, they may have to drive to the location where the information is located to get the information or they may have to send a fax or a letter to request the information. The cost of phone calls, transportation, fax and mailing constitutes the financial or monetary costs of search activity. It is likely that as the monetary cost of information search increases, consumers will search for less and less information if they believe that the benefits they will gain from the information search will not exceed the monetary cost of information.

The final category of information cost is the effort required for the information search. Effort refers to the amount of cognitive effort required to perform the task of information search. Researchers argue that the cost-benefit framework is more useful in determining the level of cognitive cost and it has been used by a variety of researchers to explain how decision makers select a choice strategy (Beach and Mitchell 1978; Bettman et al. 1991; Payne 1982; Shugan 1980). In this model, consumer search activity is hypothesized to be driven by both cognitive

cost and benefit factors. For example, Beach and Mitchell (1978) argued that the strategy selected by an individual would be the strategy that optimally trades-off the benefits and the cognitive costs using the strategy. Shugan (1980) examined the “cost of thinking” associated with various decision strategies by identifying the relative expected cognitive cost required to employ a variety of strategies. He argued that the decision maker would use the strategy that requires the lowest relative cognitive cost. These studies indicate that consumers explicitly or implicitly determine the cognitive cost and benefits associated with the use of various information search strategies, and then trades these factors off to make final information strategy selection.

In a more contingent strategy selection approach, used by researchers such as Payne (1982), the task and context factors that comprise the information environment are seen to influence directly the type of information processing undertaken by consumers. By employing a production system framework (essentially a set of “if..then” rules), one can estimate the cost expended by a consumer using a particular information strategy when faced with a given set of individual and context-specific conditions. Work along these lines, using external sources of information exclusively, has been conducted by Johnson and Payne (1985) and Bettman, et al. (1991). Both studies reported that there is an apparent trade-off between cognitive cost and benefit.

The cost-benefit framework and the cost of information theory suggest that consumers are likely to make better choices by expending cognitive effort used in the selection and

application of information search strategy (Avery 1996; Payne 1982; Stigler 1961). Conversely, a consumer who is unwilling to expand considerable cognitive effort in the selection and application of information search strategies decides that the anticipated additional cognitive cost is greater than the anticipated gain. The preceding trade-off may be between effort and accuracy, or between effort and some other variable representing the potential benefit of an information search strategy, such as the minimization of decision regret (Bell 1983) through information search or the attainment of predetermined acceptable level of effort for the type of decision at hand (Payne 1982). Effort would include cognitive processes such as the evaluation of information, the integration of information from various sources and the effort devoted to the retrieval of internally available information (i.e. global evaluations and individual pieces of attribute information)

Using the cost-benefit framework and the cost of information theory, the argument here is that an individual willing to have higher cost in information search believes that by doing so s/he will make a better (i.e., more accurate) choice. Therefore, the individual is likely to search for additional information as long as s/he feels that the benefits of acquiring information outweigh the cost of information as indicated by “the economics of information” theory and the cost-benefit framework. Consumers are likely to search for information until benefits gained from the search activity exceed the cost of searching.

Both the cost-benefit framework and the economics of information theory dictate that the amount of search undertaken by the consumer is predicted to be positively related to the value of the good purchased and the degree of price dispersion in the market. The amount of search is

predicted to be negatively related to the cost of search in terms of a consumer's opportunity cost of time, the cost to the individual of processing new market information, and other direct search related costs such as transportation. Stigler (1961) assumes an increasing marginal cost of search, with search becoming more expensive as the investment in search increases.

The cost of information search is likely to have a direct impact on the level of external information search employed by the consumer (Bettman 1979a; Brucks 1985). Time and monetary cost are likely to be the ones that would influence the level of external information search utilized by consumers (Marmorstein et al. 1992). An increase in monetary and time cost associated with external information search would be expected to lead to an increase in the effort associated with the execution of an externally based decision. Therefore, as monetary and time cost of external information search increases, internal information should become relatively more attractive to the decision maker, leading to an increase in the amount of internal search effort. Simultaneously, the utilization of external information search is likely to decline with an increase in the external information cost.

The willingness to expend cognitive effort is likely to have a direct impact on the total amount of cognitive effort that the individual employs in making the required choice. If the consumer's willingness to expend cognitive effort is high, s/he is likely to undertake considerable internal search effort. Willingness to expend cognitive effort is likely to be influenced by the cost benefit-determination that takes place during the information and choice selection strategy. Therefore, an individual's willingness to expend cognitive effort is likely to be determined by the cognitive cost of information search. If the cognitive cost of information

search is high because of low expected benefits, a consumer's willingness to expend cognitive effort is likely to be low and, as a result, information search utilized by consumer is likely to be low.

Studies have shown that individuals collect information for two purposes: to make purchase decisions and to enhance their knowledge (familiarity and expertise) about a product category. Travelers who collect information to make a decision are usually involved in a pre-purchase information search. However, not all travelers collect information for immediate purchases (Vogt and Fesenmaier 1988). Evidence exist that some travelers search for information apart from product based needs. In other words, they are always searching and not necessarily because they are planning to buy (Bloch et al. 1986; Vogt and Fesenmaier 1988). Travelers who collect information to enhance their knowledge (familiarity and expertise) usually perform an ongoing information search (Bloch et al. 1986; Vogt and Fesenmaier 1988). Bloch et al. (1986) defined ongoing information search as activities that are independent of a recognized and immediate purchase problems. Acquired and processed information is stored in memory so that when a need arises (for themselves or for others) to evaluate a product or to make a decision, they can assess these stored information. Therefore, travelers' ongoing information search activities are likely to increase their prior product knowledge, in other words, their familiarity and expertise since familiarity and expertise are two components of prior product knowledge (Alba and Hutchinson 1987). Prior product knowledge and its two components, familiarity and expertise, are discussed in detail in the next section.

As in the case of pre-purchase information search, the cost of information search is also likely to influence travelers' ongoing information search, therefore, their familiarity and expertise. The relationship between cost of information search and familiarity and expertise is likely to be inverse because consumers are likely to gather information for later use as long as they feel that the benefits of acquiring information outweigh the cost of information (Stigler, 1961). As the cost of ongoing information search increases, travelers are less likely to search for information for the purpose of later use. As a result, they are likely to have less familiarity and expertise with the product category (Alba and Hutchinson 1987).

### **Prior Product Knowledge**

The consumer behavior literature suggests that prior product knowledge, or information held in an individual's memory, facilitates easier and more efficient processing of information because knowledgeable consumers are able to focus on those pieces of information that are relevant to the decision at hand (Johnson and Russo, 1984; Rao and Sieben, 1992).

Consumers' prior product knowledge has been analyzed in consumer behavior literature in two different formats; as objective knowledge or subjective knowledge (Rao and Sieben, 1992). Objective knowledge is the accurate information stored in the memory (Brucks, 1985) while subjective knowledge refers to people's perceptions of what or how much they know about a product or product class (Monroe, 1976; Park, Mothersbaugh, and Feick, 1994). Park and Lessing (1981) proposed that subjective knowledge is likely to depend on what consumers actually know as well as on their self-confidence in the amount and type of information held in

memory. However, Park et al. (1994) suggest that what people think they know and what they actually know often do not correspond. Subjective and objective knowledge often have different effects on information search and information processing. Independent of objective knowledge, subjective knowledge is likely to influence the utilization of external information sources (Park et al. 1994). Brucks (1985) found that increases in subjective knowledge (but not objective knowledge) were associated with a decrease in utilization of salesperson recommendations. Park, Gardner, and Thukral (1988) found that, independent of objective knowledge, lower subjective knowledge was associated with higher perceived importance of, and receptivity to, new information.

Consumers can gain product knowledge from their previous experiences with the product, those of others, and by means of visual, verbal, and sensory stimuli such as advertisements, newspaper/magazine articles, and television programming (Voght and Fesenmaier 1998). Consumers also gain product knowledge through an on-going information search process (Bloch et al. 1986). Prior product knowledge enables consumers to evaluate a product's utility, attributes, and applications. Thus, prior product knowledge enhances one's internal memory and assists in the decision-making process (Brucks, 1985). Prior product knowledge also affects the nature of information search and the storage in long term memory (Bettman 1979b).

Several researchers examined the relationship between prior product knowledge and information search. However, findings have been contradictory. A number researchers have concluded that there is a negative relationship between the amount of prior knowledge and the

amount of external information search (Anderson, Engledow and Becker 1979; Etzel and Wahlers, 1985; Fodness and Murray, 1998; Katona and Mueller 1955; Moore and Lehmann 1980; Newman and Staelin 1971; Snepenger and Snepenger 1993; Swan 1969). There are two different explanations in the literature for these results. The first explanation argues that experienced consumers have prior knowledge about the attributes of various alternatives, and consequently do not need to acquire such information from external sources (Brucks 1985). They make decisions based on their prior knowledge. The second explanation argues that experienced consumers perform more efficient information searches because they know what information is important and useful and they also know where to get this information. However, several researchers also argued that prior product knowledge encourages information search by making it easier to process new information (Coupey, Irwin and Payne 1998; Johnson and Russo 1984; Ozanne, Brucks and Grewal 1992). For example, knowledge of product attributes may allow the individual to formulate more questions and, therefore, may lead to more information search. Another group of researchers argue that the relationship between prior product knowledge and information search is an inverted-U shaped relationship (Brucks, 1985; Bettman and Park, 1980; Gursoy 1999; Johnson and Russo 1984). However, Punj and Staelin (1983) explicitly tested their data for an inverted-U shaped relationship and found only a negative, linear relationship between search and prior product knowledge directly associated with the available choice alternatives.

In this study, a negative linear relationship approach is taken. Thus, this study examines the proposition that there is an inverse relationship between prior product knowledge and external information search due to the fact that several researchers claim that as the prior product knowledge increases consumers are likely to perform an internal search before they conduct an

external search. If the internal search provides sufficient information regarding a decision, consumers are not likely to perform an external search (Beatty and Smith, 1987).

Alba and Hutchinson (1987) examined the concept of prior product knowledge, and they concluded that a consumer's prior product knowledge has two components; familiarity and expertise. Familiarity refers to the number of product-related experiences that have been accumulated through purchase, use, vicarious experiences, ongoing involvement and learning. Expertise refers to the ability to perform product-related tasks. Familiarity represents the early stages of learning and expertise represents the later stages of learning.

### **Familiarity**

Familiarity of consumers with a product category has been recognized as an important factor in consumer decision-making (Bettman and Park 1980; Park and Lessing 1981). Consumers' familiarity with a product category is measured as a continuous variable that reflects their direct and indirect knowledge of a product category (Alba and Hutchinson 1987). Several researchers examined familiarity as the consumer's perception of how much s/he knows about the attributes of various choice alternatives s/he is considering (Moorthy et al. 1997). Since familiarity represents early stages of learning, consumers are likely to gain knowledge and, therefore, familiarity through an ongoing information search such as reading guidebooks, other related books, advertising and write ups in newspapers and magazines, watching advertisements on TV and listening to advertising on radio and talking to friends and relatives, etc. For example, researchers have suggested that the products advertised in national media tend to be highly familiar (Kent and Allen 1993; Stewart 1992). Studies show that product familiarity has direct

impact on information utilization. Park and Lessing (1981) found that consumers with different levels of familiarity exhibit significant differences in the use of functional and nonfunctional dimensions and confidence in utilizing incoming information.

In both familiar and unfamiliar product categories, consumers may search memory for some information to help guide them to make decisions. Consumers' familiarity with a product category is likely to lead them to direct acquisition of available information from their memory (Brucks 1985; Coupey et al. 1988). If the consumer has sufficient information in his/her memory, she may not need to search for additional information and makes his/her decision based on internal information (Brucks 1985). In addition, in familiar product categories, choice is likely to be an easily performed task because s/he is likely to know which attributes are most important and s/he is likely to search for external information on those attributes (Coupey et al. 1988). Searching information only on a few specific attributes is likely to make the familiar consumer utilize fewer external information sources compared to an unfamiliar consumer. Therefore, familiar consumers are likely to rely on external information sources to make decisions less than unfamiliar consumers.

Researchers who examined travelers' information search behavior agree that familiarity of travelers with a destination is likely to influence travelers' information search behavior and decision-making process. Therefore, the importance of travelers' familiarity is well recognized among tourism researchers (Etzel and Wahlers, 1985; Fodness and Murray, 1997, 1998, 1999; Perdue, 1985; Schul and Crompton, 1983; Snepenger and Snepenger 1993; Woodside and Ronkainen, 1980; Vogt and Fesenmaier 1998). Familiarity is mostly measured by a single

indicator and, often referred to as previous trip experiences (Woodside and Ronkainen, 1980). Therefore, in previous studies this construct is mostly operationalized by measuring the number of previous trips taken to a particular destination.

A number of researchers argue that if travelers are highly familiar with a destination, they may not need to collect any additional information from external sources for a routine trip to family or friends, or for repeat visitation of a certain destination because they are likely to make their decision based on their familiarity with the destination (Etzel and Wahlers 1985; Snepenger and Snepenger 1993 ). However, other researchers argue that even travelers with high familiarity may need to undertake external search. Travelers may search for external information even before a routine trip to visit family or friends because of a change in route or some side trips (Perdue 1985).

The preceding discussion led to the conclusion that as travelers' familiarity with a destination increases, they are likely to rely on internal information sources more than external information sources.

## **Expertise**

Familiarity represents the early stages of learning and expertise represents the later stages of learning. Alba and Hutchinson (1987) defined the product related experiences at the most inclusive level including advertising exposures, information search, interactions with salespersons, choice and decision-making, purchasing, and product usage in various situations. The term consumer expertise was also used in a very broad sense that includes both the cognitive

structures (e.g., beliefs about product attributes) and cognitive processes (decision rules for acting on those beliefs), required to perform product related tasks successfully. They also proposed that increased familiarity results in increased consumer expertise. However, the type of expertise required to perform a product related task will vary based on the type of product related task because different tasks require different types of expertise. Moreover, more than one type of knowledge is generally required for the successful performance of particular task (Alba and Hutchinson 1987). Therefore, Alba and Hutchinson (1987) proposed that there are at least five qualitatively distinct aspects of expertise that can be improved as product familiarity increases. These are automaticity, expertise in utilizing memory, expertise in building cognitive structures, expertise in analysis and expertise in elaboration (Alba and Hutchinson 1987).

Alba and Huchinson (1987) argue that task performance may be improved by simple repetition because repetition reduces the cognitive effort required to perform the task and increases familiarity. Further, repetition and increased familiarity may lead to performance that is automatic. An increase in familiarity is also likely to lead to more refined and more complete cognitive structures that are used to differentiate products. The ability to analyze information is likely to improve as a result of an increase in familiarity due to the fact that consumers may be able to isolate the information that is most important and task relevant. Increase in familiarity is also likely to improve the ability to elaborate on given information that may lead to generation of most accurate knowledge that goes beyond what is given and to improve the ability to remember product information.

Repetition has simple but powerful effects on every type of cognitive task (Alba and Hutchinson 1987). As consumers perform the same/similar tasks over and over, demand on cognitive resources starts decreasing and consumers perform the task more rapidly. Assuming that consumers are likely to allocate more cognitive resources to perform unfamiliar tasks, increase in product familiarity should reduce the effort and cognitive resources required during consumer decision-making and product usage (Chi, Glaser and Farr 1988; Einhorn and Hogarth 1981; Hoyer 1984; Payne 1976; Russo and Doshier 1893; Spence and Brucks 1997). Since most consumer behavior can be viewed as a complex series of mental and physical tasks, decrease in cognitive demand for any particular tasks should increase the cognitive resources available to perform other tasks, and thus, should improve overall performance (Alba and Hutchinson 1987). Simple repetition or several experiences with the same/similar products over time is likely to increase consumers' familiarity with the product. An increase in product familiarity should reduce the level of cognitive resources and effort required to perform product related tasks. Since performing the tasks requires less cognitive effort and resources, an increase in product familiarity should increase the speed and possibly the accuracy of product related tasks. When a consumer becomes highly familiar with the product and the brand name, it is likely that the consumer's response to a stimulus will be automatic, meaning that consumer will search for the specific brand name whenever the stimulus is present. Once a consumer's response becomes automatic, the consumer is likely to become loyal to the specific brand. Therefore, it will be hard to change the response of the customer because s/he may view the acquisition of even simple product related skills as a significant "start-up cost" and "risk" for switching from a familiar product to an unfamiliar one (e.g. many hotels offers different levels and quality of service and amenities).

The preceding discussion of familiarity, expertise and the impact of familiarity on expertise led to the following hypothesis:

**Hypothesis 1: There is a direct positive relationship between familiarity and expertise.**

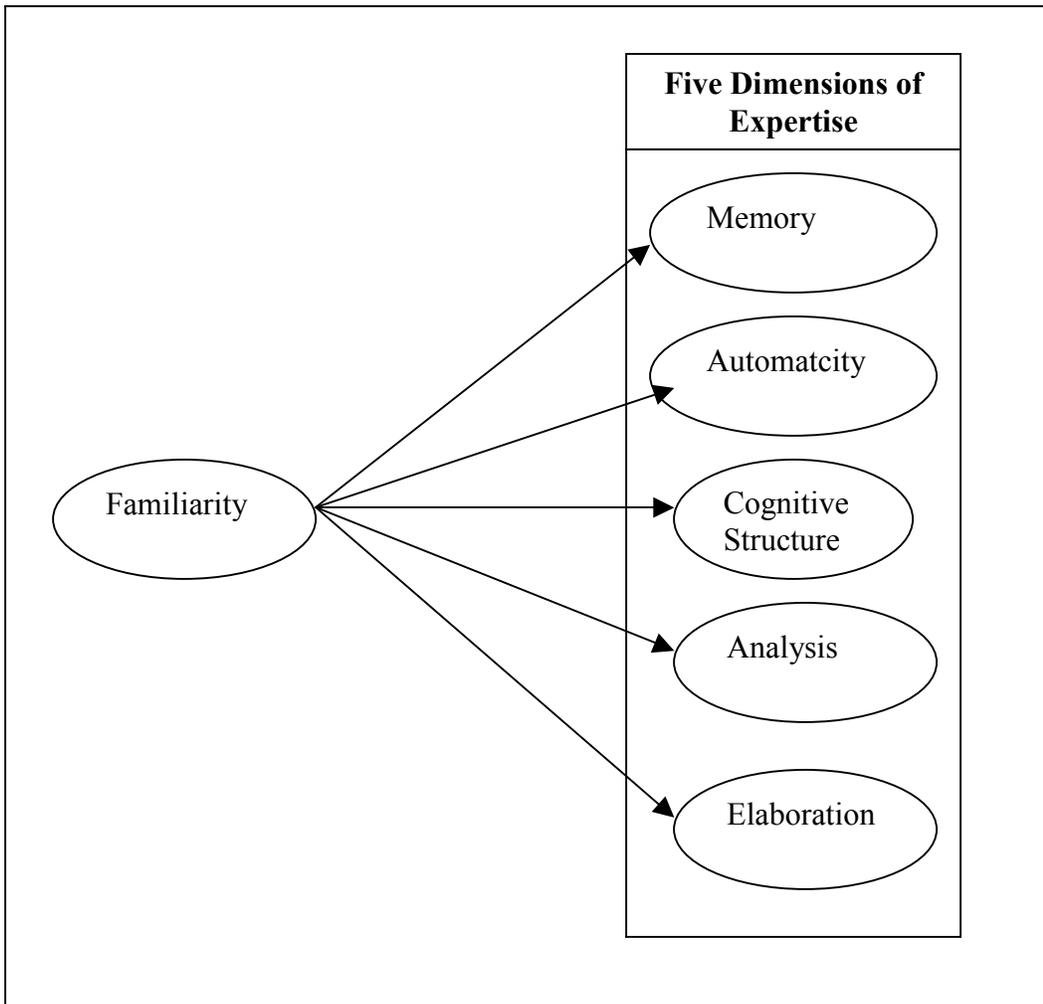
**Hypothesis 2: There is a direct negative relationship between familiarity and external search.**

**Hypothesis 3: There is a direct positive relationship between familiarity and internal search.**

### **Dimensions of Expertise**

Five dimensions of expertise are discussed in detailed in the following five sections to provide a better understanding of consumer expertise and its influence on travelers' information search behavior. Figure 2.2 presents the five dimensions of expertise. These dimensions are: automaticity, expertise in utilizing memory, expertise in building cognitive structures, expertise in analysis and expertise in elaboration (Alba and Hutchinson 1987).

**Figure 2.2**  
**Prior Product Knowledge Model**



In this study, each dimension of expertise is measured by multiple indicators. However, to simplify the analysis and presentation and to make this dissertation manageable, the indicators of each dimension are summated and resulting five summated scales are used to measure expertise.

## *Memory*

Memory plays a major role in consumer choice behavior because the specific inferences drawn by consumers from product stimuli, advertising, word of mouth, and other sources of product-related information are heavily dependent upon what data are in memory and how they are organized (Bettman 1979b). What information is stored in memory may depend in large part on the use to which the consumer intends to put it. The consumer may wish to use the information as a reminder of something while shopping, such as a brand that implies that recognition of that brand during shopping suffices. On the other hand, the consumer may want to decide before starting to shop, so that recall will be required. The timing of a decision, during shopping or before shopping, may greatly influence the type of memory needed, whether for recognition or for recall. The tasks of recognition and recall differ in the basic type of processing that leads to effective performance. To recognize a stimulus from among a set of distracting stimuli, information allowing one to differentiate or discriminate the previously encountered stimulus is necessary. In recall, however, information allowing one to reconstruct the stimulus is required, since the stimulus itself is not present (Bettman 1979b). Prior research argues that different pieces of information about a product (called cues or associations) are linked to a product node in memory (Holden and Lutz 1992). For example, the node for KFC could be linked to attributes (greasy), situations (lunch on campus), food-related goals (quick), and the product category (fast food). However, other products could be linked to each of these cues as well (e.g., McDonald's and Wendy's linked to quick), some more strongly than others (McDonald's vs. Subway). When thinking about any of these cues (e.g., quick), the strongly linked products (e.g., McDonald's) are more likely to be recalled than others. Further, because

distinct products are linked to different cues, as the retrieval cue changes (e.g., lunch on campus vs. lunch in a hotel), a different set of products will be retrieved (Desai and Hoyer 2000)

Product familiarity may enhance the brand name recognition (thereby increasing the likelihood of brand consideration) in three ways. First, a small number of exposures to a new brand name are required to establish a permanent memory code (Salasoo, Shiffrin, and Feustel 1985). Presumably, this code mediates subsequent brand knowledge by connecting the name to the developing brand meaning (Jacoby and Brooks 1984). Second, structural aspects of consumer knowledge determine which brand names are perceptually enhanced via associative priming in various situations. Perceptual enhancement means that previous exposures to a brand increase the ease with which it is recognized (Jacoby 1983). The broad generality of the priming stimuli suggests that brand recognition is facilitated whenever consumers are thinking of semantically related words, such as the product class name. As a result the ways in which consumers categorize brands and the brands that are primed during search change as product familiarity increases (Alba and Hutchinson 1987). Third, frequent or recent exposures to the brand name enhance recognition. Product familiarity, in the sense of total number of product related experiences, may not have much effect on brand name recognition. Rather, the most recent experiences are likely to be most influential because words that occur frequently in the language are more easily identified than infrequent ones. Moreover, studies indicate that a single exposure to a word produces a facilitatory effect that lasts for at least a week (Jacoby 1983), but not as long as a year (Salasoo et al. 1985).

Several researchers concluded that repetition enhances retrieval (Crowder 1976; Hintzman 1976; Moorthy et al. 1997) because when consumers encounter a situation frequently, the linkages between the situation and the (set or category of) products considered in it will be strengthened (Desai and Hoyer 2000). This will enable consumers to easily recall these products whenever the situation is encountered. For example, football fans can easily recall hot dogs and candy at the stadium. Since experts receive greater exposure to particular brands and attributes, their memory for that information should be better. Therefore, experts should be more likely to recall brand information spontaneously and are less likely to choose a brand on the basis of its advertising-induced salience or evaluate a brand solely on the basis of its major selling proposition. On the other hand, since novices may receive less exposure to a particular brand and attributes, engage in less search, lack in expertise, and are less equipped to make product comparisons, they are more likely to be influenced by top-of-mind brand and attribute awareness or by cues available at the point of purchase.

In infrequently encountered situations consumers are not likely to have strong situation-to-category linkages because there have been fewer opportunities to develop such linkages. As a result, it is more difficult for consumers to recall the products that they may have previously considered in these situations. For example, an infrequent flyer may not be able to easily recall the food to eat when in a hurry at an airport. Thus, rather than simply recalling a well-established memory-set, s/he will construct a new set or category labeled “ad hoc” category. This will be achieved by first generating appropriate situational thoughts (e.g., I have very little time before I catch my flight; food is usually expensive at airports) and situational goals that are abstract benefits that are fulfilled by product attributes (e.g., quick to eat but cheap food) (Huffman and

Houston 1993). Then, members of related, well-established categories will be checked for their ability to satisfy those goals (Barsalou 1983). This process takes more processing effort than simply recalling a well-established memory-set. Note that if this low-frequency situation is encountered more frequently, the situation-to-product linkages become strengthened and the ad hoc category develops into a well-established memory-set from which it is easier to recall a set of products for that situation (Desai and Hoyer 2000).

Recall is also affected by the number of facts a customer has accumulated, knowledge of the importance and typicality of those facts, and understanding of how those facts are related. In many consumer situations, the recall of brand names is cued by either product class or specific attribute information (Nedungadi 1990). In essence, the consumer's task is to produce instances of either taxonomic (e.g., beer) or goal-derived (e.g., something to drink) categories respectively. Goal-derived categories are much less well established in memory than are common taxonomic categories (Barsalou 1985). In particular, prototypicality is less predictive of recall frequency (Barsalou 1985), and automatic detection processes are less developed (Barsalou and Ross 1986). Thus, prototypicality is not expected to predict inclusion in the evoked set as well for goal-derived categories as it would for common product categories. In addition, since effortful processing is required, novice consumers should be less aware of products as members of goal-derived categories. The apparent reason for this difference is that goal-derived categories are used infrequently relative to taxonomic categories. Therefore, it is natural to expect that the size of the memory effects associated with goal-derived categories increase with product familiarity. Consider, for example, the difference between a novice backpacker and an experienced one. Without strong memory effects, the evoked set of a novice for things to buy for backpacking is

likely to be heavily influenced by external factors such as the inventory and shelf display of products in the stores in which s/he shops. On the other hand, the evoked set of an experienced backpacker is likely to be more memory based (Alba and Hutchinson 1987). When decisions are memory based, knowledge may offer the expert an opportunity to use processing decision strategies that are very different from the ones the novice may use. When expert and novice consumers learn the same information and later must make a decision, the expert may be able to rely on memory, whereas the novice may again need to engage in external search or else make an ill-informed decision.

Another aspect of brand name recall that may affect the consumer decision-making involves the extent to which different brand names are recalled together. In making consumption decisions in different situations, consumers must first recall from memory a set of products that may fulfill their needs and then make their final choice from this set (Ratneshwar and Shocker 1991). Brands that are frequently recalled together are likely to be included in the same evoked sets and, therefore, compete more directly with each other than brands that are seldom recalled together. Consumers tend to recall brand names in categorical structures. The consumer's category structure should have a strong influence on brand name clustering. A key point is that consumers are likely to make their final choice from this memory-set, and unless an item is included in the set, it will not be chosen (Nedungadi 1990). Since the category structure of a consumer who has high expertise in utilization of memory differs significantly from the consumer who has less expertise, expert consumers are likely to recall categorical structures that are more specific than the categorical structures recalled by novice consumers.

Recall of a message is also significantly affected by the perceived importance and relevance of the facts contained in the message (Voss, Vesonder, and Spilich 1980). Perceived importance and relevance are likely to vary as a function of, among other things, consumer familiarity (Jacoby, Troutman, Kuss, and Mazursky 1986). Familiar consumers should recall a greater amount of important and decision related information because of their superior ability to distinguish between relevant and unimportant product information. As a result, when decisions are memory based, experts maintain their superior ability to be analytic (Hutchinson and Moore 1984).

Clearly, expertise can have wide ranging effects on a consumer's ability to remember product related information. At the most basic level, mere exposure to a brand name may result in perceptual enhancement of it during visual search (Jacoby 1983). Repeated exposure to a single brand or attribute may lead to easy retrieval of information about that single brand or attribute (Crowder 1976; Hintzman 1976; Moorthy et al. 1997). Wider experience results in the accumulation of more information, which enables consumers to include more brands in their memory based evoked sets and to recall and use more attributes during internal information based decision-making. When decisions are based on internal information, knowledge may offer an expert consumer an opportunity to use processing decision strategies that are very different from the ones the consumer who is low in expertise may use. When a consumer who is high in expertise and a consumer who is low in expertise learn the same information and later must make a decision, the expert consumer may be able to rely on memory, whereas the consumer who is low in expertise may again need to engage in external search or else make an ill-informed decision.

### *Automaticity*

For certain tasks, such as routine tasks, repetition may lead to reduction of cognitive effort required so far that the task may be performed automatically. Automaticity can be defined as the process that can be performed with minimal effort and without conscious control (Alba and Hutchinson 1987; Bargh 1984; Fisk 1986; Hasner and Zacks 1979, 1984; Welford 1976; Zacks, Hasner, and Hock 1986). Automatically processed tasks can be performed simultaneously with other tasks without significant reduction in efficiency because automaticity “frees up” resources for use in other processes and, thus, improves overall performance. Consider, for example, the case of families who have been visiting their parents during Thanksgiving vacation for many years. They have extensive experience with planning the thanksgiving vacation, including the driving route – driving from their house to their parents’ house, what time to leave and where to stop for refreshments etc. Given the years of experience, it is likely that the specific task such as driving along the same route has become automatic. Therefore, they may not need any additional information. They may believe that they have sufficient knowledge about the route and thoughts may be devoted to other vacation-related tasks.

Reduction in cognitive effort is not the only implication of automaticity. There are two other significant properties of automaticity (Alba and Hutchinson 1987). First, once a stimulus-response relation has been automatized, it is difficult to change (Neves and Anderson 1981; Shiffrin and Dumais 1981). Consider, for example, the case of frequent business traveler who has been staying at the same hotel chain wherever the brand is available for many years. When s/he arrives in a new destination, it is likely that s/he will automatically start searching for the

location of his/her preferred hotel brand (Mattila 1987). Therefore, automatized response is likely to decrease re-evaluation of the choice and the possibility of trying other brands. However, changes in the brand name or logo may make it harder for loyal customers to find their preferred brand. That may increase the likelihood of re-evaluating the choice and the possibility of trying other brands may increase once the identification ceases to be automatic. (Alba and Hutchinson 1987). The second significant property of automaticity is that consumers are likely to detect their preferred brand without conscious control and whenever the stimulus is present, unless it is specifically inhibited by conscious processes (Bargh 1984). Therefore, frequent business travelers who are loyal to a specific hotel brand are likely to notice their preferred brand whenever and wherever it appears—while driving, in advertising, in movies, etc. They are also likely to stay at their preferred hotel brand when they travel for pleasure, unless their choice is inhibited by other factors such family members, friends, etc.

Another important aspect of automaticity is semantic filtering. Researchers suggest that automatic process can semantically filter incoming information (Barsalou and Ross 1986; Schneider and Fisk 1984). For example, over many years a frequent traveler to ancient sites is likely to spend much time searching for ancient site information. At some point, detection of ancient site related words might become automatic, and the traveler will likely notice ancient site information even when s/he is not deliberately searching for it. Bargh (1984) argues that people also automatically process self-relevant information because people are constantly experiencing events with themselves as the central focus and therefore the category of self self-relevant information is likely to be detected automatically as a form of semantic filtering. Once a consumer purchases a product, that product becomes self-relevant and therefore, it might lead to

automatic detection without extensive experience with the product. For example, a traveler who purchases a trip or has been to a particular destination might suddenly start noticing advertising and news on every medium and about each product made in that particular destination while shopping. One explanation of this phenomenon is that the particular destination has become self-relevant. Thus, although automatic detection usually requires an extensive history of product-related experiences, automatic detection may follow almost immediately after purchase if there is high personal involvement with the product or the purchase decision (Alba and Hutchinson 1987).

Fodness and Murray (1997) segmented leisure travelers based on their information search behavior. They defined the information search as a function of degree of effort and as a function of information search direction. First, they segmented travelers based on their degree of search effort. In this segmentation they proposed four different modes of information search; routine search, source limited search, time limited search and extended search. Their routine search segment spent less than one month on information search and used one or no external information sources. The extended search segment utilized more than two external information sources and spent more than one month for trip planning. They categorized travelers who either used a shorter planning period and more external sources or a longer planning period and fewer sources as time-limited and source-limited information seekers, respectively. Second, they identified search strategies utilized by travelers based on their search direction. They identified three major search strategies utilized by travelers; active, passive and possessive. The active search strategy consisted of using a wide variety of external information sources such as auto clubs, brochures, highway welcome centers, local tourism offices, state travel guides, and travel

agents. Travelers who utilized a passive search strategy were distinguished by their heavy reliance on friends and relatives and highway centers for information. The last group included the largest number of travelers who depended on either on friends and relatives and or personal experience to plan their trip. Most of the travelers who were included in the routine search segment who utilized a possessive search strategy were likely to make their travel decisions automatically without searching for any external information. A number of studies also support the conclusion travelers are high in familiarity are not likely to collect additional information to make their travel decisions and they are likely to make their travel decisions automatically based on their internal knowledge (Etzel and Wahlers 1985; Snepenger and Snepenger 1993 ). Therefore, automaticity is likely to increase internal information utilization and decrease external information source utilization.

### ***Cognitive Structure***

Cognitive structures can be defined as the ways in which consumers organize their factual knowledge (beliefs) about products and product categories in their minds (Lutz 1975; Marks and Olsen 1981). The principal function of cognitive structure is to differentiate various products and services in ways that are useful for decision-making. One way of differentiating various products and services for consumers is to categorize them. The application of category structures to differentiate objects is well documented in both psychology (Medin and Smith 1984; Smith and Medin 1981) and consumer behavior (Alba and Hutchinson 1987; Brucks 1986; Cohen 1982; Sujana 1985). The first categorical structures that are learned are the basic level categories (discriminations). At this level, objects tend to be spontaneously named and discrimination at this level tends to be easier than at other levels (Rosch, Mervis, Gray, Johnson,

and Boyes-Braem 1976; Tversky and Hemenway 1984). Descriptively, the basic level is the level at which within-category similarity is maximized relative to between-category similarity (Mervis and Rosch 1981; Murphy 1982; Murphy and Medin 1985). For example, an unexperienced (novice) consumer might categorize Days Inn as “hotel” instead of “economy hotel” because, for the novice consumer, hotels are quite similar to each other. Therefore, several experiences in booking a hotel room, staying in, and using the facilities of different hotels might enable this consumer to distinguish hotels based on several different features such as price, amenities offered, etc. Because of the ease of basic level discriminations, consumers are likely to learn these basic level categorical structures first in a given domain (Anglin, 1977; Murphy and Smith 1982; Nelson 1977).

As expertise increases, the ability to categorize products at levels above and below the basic level increases too (Alba and Hutchinson 1987). Consumers who are expert with hotels can distinguish between hotels (i.e. economy and budget hotels). An increased ability to categorize products below the basic level enables consumers to make brand-level evaluations and makes it easier for marketers to communicate brand specific information. Therefore, customers who are expert with the product should be more able to avoid confusion between brands and remember brand specific information. The development of categories below the basic level should permit experts to consider a more homogeneous set of alternatives than do novices when their need is specific (Ozanne et al. 1992).

Category structures above the basic level tend to be more abstract, more related to important causal mechanisms and more qualitative than quantitative (Murphy and Medin 1985).

Several researchers concluded that a shift from a basic category structure to a category structure above the basic level occurs as expertise increases (Adelson 1984; Chase and Simon 1973; Kuhlthau 1999; Nelson 1977; Spence and Brucks 1997). Categorization of destinations can be a good example of categories above the basic level. At the basic level, destinations can be categorized as Caribbean destinations, European destinations, etc. People who are familiar with destinations may form even broader categories such as sea, sun and sand destinations, cultural tourism destinations, ecotourism destinations, etc. Travelers who are interested in Roman history may learn to distinguish historical Greek sites from historical Roman sites. These categories represent deep structure differences that are directly related to historical facts. Therefore, the failure of travelers to appreciate the more abstract level categorization is likely to limit the number of destinations that are considered. The development of categories above the basic level should permit experts to consider a more heterogeneous set of alternatives than do novices when their need is general. For example, a traveler who wishes to visit an ancient Roman site may consider traveling to Turkey, Greece or Italy because all of these countries offer wide selection of ancient Roman sites.

As new levels of categorization and new criteria for categorization are learned, the differences between members of the same category and the similarities between members of different categories become well known to the expert (Murphy and Wright 1984). Therefore, increased expertise results in a more complicated, but more accurate category structure (Weber and Crocker 1983). Since a well-developed category structure permits more extensive chunking of information and because of high level of repetition, the cognitive effort required to make use

of the distinctions is presumably reduced for experts (Anderson 1983; Chase and Simon 1973; Hayes-Roth 1977).

An important factor in the development of cognitive categorical structure is prototypicality, which indicates that some members are better examples of a category than others (Mervis and Rosch 1981; Rosch and Mervis 1975; Smith and Medin 1981). There is considerable evidence that the most prototypical members of a category are learned first (Homa 1984; Mervis and Pani 1980; Mervis and Rosch 1981) and other members are added to the category based on their resemblance to prototypical members (Rosch and Mervis 1975; Tversky 1977). Since good category examples are highly similar to other category members and highly dissimilar to members of other categories, it is likely to affect the choice and the accumulation of knowledge. Due to the knowledge and the level of repetition with the product, it is likely that novice customers will know about prototypical brands, but not atypical brands while expert consumers are likely to be familiar with both types.

Overall, increased expertise should enable consumers to make finer discrimination by enabling them to learn more subcategories below the basic level and by shifting the properties of the basic level to more specific levels of categorization. Also, as expertise increases, the internal representations of products should become more complete and more categories above the basic level and atypical, as well as typical, products should be represented. Therefore, an increase in expertise is likely to influence cognitive structures that are most likely to affect consumer behavior by changing the ways in which decisions are framed. There should be significant differences between novices and experts in the size and composition of the set of alternatives

they consider and in the nature of attributes that are used to evaluate those alternatives. As a result, travelers who are expert in building category structures are likely to perform better analysis of incoming information (Coupey et al.; Johnson and Russo 1984; Ozanne et al. 1992). Expertise in categorization of products and destinations should also make travelers more efficient external information seekers because they are likely to know what is important and useful to evaluate products and they are also likely to know where to get this information. As a result, they are likely to utilize fewer number of external information sources compared to travelers who have low expertise in categorization. In addition, consumers who have high expertise in categorization are likely to have a better knowledge about the attributes of various alternatives, and consequently may not need to acquire much information from external sources (Brucks 1985).

### *Analysis*

Degree of analysis refers to the extent to which consumers access all and only information that is relevant and/or important for a particular task. Consumers utilize one of two processing approaches to analyze information. These are analytic processing and non-analytic processing. Analytic processing generally requires more effort than non-analytic processing due to the fact that search (external or internal) extends beyond the most accessible information, and irrelevant information must be ignored or discounted (Alba and Hutchinson 1987). Product familiarity should, in general, reduce the level of effort required and free up cognitive resources and in complex tasks, familiarity should reduce the resources required for some components, making them available for analytic processing (Jacoby and Brooks 1984). Therefore, product familiarity should increase the likelihood of analytic processing.

Knowledge may affect the extent or depth to which consumers process available information (Olson 1980). Novices may find some of the available information (product related facts) to be less useful and less interesting because of their limited ability to comprehend and evaluate product related facts (Anderson and Jolson 1980) and it may lead to non-analytic processing. For example, an expert skier may evaluate a ski resort's claims about the quality of its slopes and the level of ski related services provided by focusing and carefully inspecting its specifications. The novice, on the other hand, unable to discriminate relevant information from irrelevant and good from bad, may scan the same information, perhaps finding support for the claims in the sheer amount of information provided rather than its significance (Alba and Marmorstein 1987). Novices may also eliminate attributes from consideration on the basis of expediency rather than importance to simplify the information processing. During the simplification process, novices may discount or ignore important information because of their cognitive limitations assuming that low knowledge is a cognitive limitation (Shaklee and Fischhoff 1982). Novices may also behave analytically in evaluating and using information. However, while experts place more weight on functional product information, novices may be more influenced by nonproduct information such as a salesperson's opinion (Brucks 1985).

Degree and depth of analysis and information processing may be influenced by the type of shopping decision consumers have to make. It includes the formation of evoked sets, cutoffs in various decision-making strategies, and inferences about different types of products. For most routine shopping decisions, consumers generally do not perform an external information search and explicitly do not consider competing brands. Instead, when they realize that they have a

need, they purchase their usual brand that satisfies that need. They process the product related information routinely and most routine processing of product related information offers limited opportunities for analytic processing. On the other hand, non-routinized shopping decision making, and purchasing behavior requires some form of intentional learning through explicit information search and explicit consideration of competing brands that should result in improvement in product familiarity and in expertise. Therefore, it should offer opportunities for analytic processing of information (Alba and Hutchinson 1987). However, the consumer must be motivated to be analytic. If consumers are not motivated to be analytic in their decision-making, even numerous experiences may result in little improvements (Foard and Nelson 1984). Thus, purchase decisions for products that are high in cost or that have long-term consequences should provide the most effective product related experiences for improving analytic processing.

From the above discussion, three important general properties of analytic processing emerge. First, analytic processing results in superior task performance and more elaboration of incoming information. Second analytic processing is effortful and consumers must be motivated to engage in analytic processing because analytic processing heavily relies on the availability of internal information and how that information is categorized. Thus, the benefits of analytic processing carry a cost in terms of cognitive effort. This cost, however, is reduced by experience. Finally, the types of experience that facilitate subsequent analytic processing must themselves involve analytic processing.

Expertise in analysis should also make travelers more efficient external information seekers because they are likely to discriminate relevant information from irrelevant and good

from bad (Alba and Marmorstein 1987) and they are better equipped to understand the meaning of product information because they are able to construct highly developed conceptual structures and the amount of cognitive effort they require is lower than consumers who are low in familiarity. (Johnson and Kieras 1983). As a result, they are likely to process information by eliminating attributes from consideration on the basis of importance based on the internal information they have. Therefore, they are more likely to search for new, relevant and important information more efficiently than novices before making a decision (Johnson and Russo 1984) about particular product attributes simply because they know what information they need and where to get the information about the specific attributes that they are aware of (Brucks 1985).

### ***Elaboration***

The inferences consumers make about a product can have a significant impact on attitude, judgment, information search, and choice (Fishbein and Ajzen 1975; Huber and McCann 1982). Elaboration refers to the number of intervening facts that must be computed in order for an inference to be made. The role of expertise in elaboration is to provide a route from the given information to the inference. In some cases, familiarity results in more direct or indirect route; in other cases, level of familiarity affects the likelihood that an inference will be made at all (Alba and Hutchinson 1987).

Many researchers have proposed that human beings have a limited capacity for processing information (see Bettman 1976a). This implies that in making choices consumers cannot make complicated computations and engage in extensive processing without a good deal of effort. Also, consumers tend to be limited in the extent to which they can carry out many

activities at the same time. One very basic effect of capacity limitations is that consumers develop heuristics, or simple rules of thumb to simplify the incoming information that enable them to deal with complex situations without requiring more processing capacity than is available. Therefore, the main role of simplification is to facilitate communication and processing by eliminating the need to spell out the meaning and implications of every word and phrase. However, even though, simplification represents the lowest level of elaboration, its ease and accuracy are determined in large part by consumer expertise. Knowledge is likely to increase the accuracy of simplifications that are made by consumers. For simple inferences that require minimal level of knowledge, all consumers may generate obvious simplifications virtually automatically. However, for less obvious inferences, expertise is likely to improve the accuracy of simplifications while decreasing the level of effort required. If a consumer does not understand the technical specifications of the product, an evaluative simplification about the technical specifications of the product may not be made (Alba and Hutchinson 1987). On the other hand, even when knowledge is low, consumers may attempt to simplify incoming information in order to understand the meaning of an otherwise incomprehensible message (Kozminsky, Kintsch, and Bourne 1981). Obviously the likelihood of misinterpretation is much higher in such cases. However, since novices' information processing capacity is more limited than experts, reliance on interpretative simplifications is likely to be higher for novices (Brucks, Mitchell, and Staekin 1984).

Problem solving presents an almost unlimited potential for elaboration. The problem can be defined as a need and the solution as a need satisfying product (Kotler, Bowen, and Makens 1999). The ability to solve problems is partially determined by one's experience and knowledge

(Sternberg 1986). In situations in which a problem is familiar, prior experience may lead to the direct retrieval of a prior solution – as in the case of routinized problem solving (Howard and Sheth 1969). In situations in which the problem is new, expertise allows an individual to generate and evaluate potential solutions (Voss et al. 1980). The first important step in solving any problem involves understanding the nature of the problem (Gick and Holyoak 1983). Sometimes the surface features of the problem are diagnostic, and expertise allows one to use these features to identify the problem and apply an appropriate solution (Lewis and Anderson 1985). In some cases the surface features are nondiagnostic, and expertise is required to classify the problem in terms of its deep structure (Adelson 1984). For example, consider the following problem. Two travelers are planning on going to Turkey for two weeks. A few days before their departure, they hear the news that several tourists were kidnapped in Jordan. A novice may fail to discriminate between the location of Turkey and Jordan (i.e., s/he places them in the same category/location) and s/he may overgeneralize the fact that both countries are not safe to travel. As a result s/he may decide to cancel or postpone the trip. A knowledgeable traveler may identify the problem as a kidnapping happened in Jordan which is far away from Turkey and decides to take the trip. By helping to identify the root cause of a problem, expertise often leads to a more accurate and faster solution.

Expertise may reduce the likelihood that a truly difficult problem will be oversimplified (Voss et al. 1980). Experts are more likely to appreciate the complexities of a problem and are better equipped to deal with it. For example, consider a consumer shopping for a vacation in one of the remote and little known destinations. The novice may investigate several destinations, however, because of his/her limited knowledge may decide to choose the destination that is

recommended by his/her friends, relatives or travel agent. On the other hand, the expert is more likely to consider several destinations, facilities at those destinations, local attractions around each of those destinations, risk, security, stability and so on, because s/he possesses well-developed conceptual structures of those destinations and/or s/he finds it less effortful to deal with such information.

The above discussion led to the conclusion that experts are more likely than novices to elaborate on given information and to do so accurately. Moreover, holding accuracy constant, expertise leads to easier and more efficient information processing by simplifying the meaning of a message easily and accurately. Expertise enhances a consumer's accuracy in generating product beliefs by increasing the likelihood of analytic thought and by reducing overgeneralization from known facts. Expertise also allows consumers solving a problem to identify its cause accurately and to avoid oversimplification of its solution. Therefore, travelers who have high expertise in elaboration are likely to utilize internal information search while travelers who are low in expertise are likely to utilize more external information searches.

As discussed earlier, despite the recognized importance of prior product knowledge on travelers' decision-making and information search process, tourism researchers have been treating prior product knowledge as a uni-dimensional construct (Woodside and Ronkainen, 1980). In order to expand the concept of tourist information search behavior, in this study, prior product knowledge is treated as a multi-dimensional construct having two components, familiarity and expertise. Familiarity represents the early stages of learning and expertise represents the later stages of learning. The term consumer expertise is used in a very broad sense

that includes both the cognitive structures (e.g., beliefs about product attributes) and cognitive processes (decision rules for acting on those beliefs), required to perform a product related task successfully. It is proposed that increased familiarity results in increased consumer expertise. However, the type of expertise required to perform a product related task is likely to vary based on the types of product related task because different tasks may require different type of expertise. Moreover, more than one type of knowledge may be required for the successful performance of a particular task generally (Alba and Hutchinson 1987). Therefore, Alba and Hutchinson proposed that there are at least five qualitatively distinct aspects of expertise that can be improved as product familiarity increases. These are: automaticity, expertise in building cognitive structures, expertise in analysis, expertise in elaboration and expertise in utilizing memory (Alba and Hutchinson 1987). In the previous section, all five dimensions of expertise were examined in detail in order to identify their influences on travelers' information search behavior. The discussion of expertise and its dimensions led to the conclusion that travelers' ability to utilize memory, make decisions automatically, categorize, analyze and elaborate the incoming information is likely to influence whether they are going to utilize external or internal sources of information or both. As consumers' expertise in each dimension increases, they are more likely to utilize internal information search than external information search. The preceding discussion led to the following formal hypotheses:

**Hypothesis 4: There is a direct positive relationship between expertise and internal search.**

**Hypothesis 5: There is a direct negative relationship between expertise and external search.**

## **Internal and External Information Search**

As for many other consumer product decisions, information acquisition is necessary for selecting a destination and for on-site decisions such as selecting accommodations, transportation, activities and tours (Filiatrault and Ritchie 1980; Fodness and Murray 1998; Jenkins, 1978; Perdue 1985; Snepenger et al. 1990). Information search can be defined as “the motivated activation of knowledge stored in memory or acquisition of information from the environment” (Engel, Blackwell and Miniard 1995). As the definition suggests, information search can be either internal or external. Internal search is based on the retrieval of knowledge from memory. On the other hand, external search consists of collecting information from the marketplace (Engel, Blackwell and Miniard 1995).

Whenever travelers realize that they need to make a decision, information search is likely to take place, and almost always initially takes place internally such as when previous experiences are used as the basis for planning a repeat visit. Internal sources include personal experiences, either with the specific destination or with a similar destination and the knowledge accumulated through an ongoing information search (Schul and Crompton 1983; Fodness and Murray 1997; Vogt and Fesenmaier 1998). When the internal search provides sufficient information regarding a trip decision, then external search is obviously unnecessary (Beatty and Smith 1987). Whether travelers rely solely on internal information search will heavily depend on the perceived adequacy or perceived quality of their existing knowledge. If a traveler is confident that s/he knows enough about a destination, s/he may not utilize any of the available external information sources. This perceived self-confidence may affect the utilization of external

information sources (Brucks 1985). For example, travelers may not need to collect any additional information from external sources for a routine trip to family or friends, or for repeat visitation of a certain destination because they may believe that they have sufficient knowledge about the destination. (Etzel and Wahlers 1985; Snepenger and Snepenger, 1993). However, even experienced travelers may need to undertake external search. Travelers may search for external information even before a routine trip to visit family or friends because of a change in route or some side trips (Perdue 1985). This suggests that interruptions or discrepant information may lead to external information search.

When the internal information search proves inadequate, travelers are likely to gather additional information from external sources. In the case of most travel decisions, the search is often predominantly external, involving considerable effort and variety of information sources (Schul and Crompton 1983; Fodness and Murray 1997; Raitz and Dakhil 1989). Travelers tend to use four broad external information sources when planning their trips. These are (1) family and friends, (2) destination specific literature, (3) media, and (4) travel consultants (Snepenger and Snepenger 1993). Travelers may utilize any of these external information sources for pre-purchase information search or for ongoing information search. Pre-purchase information search can be defined as the external information search that is driven by an upcoming purchase decision, whereas ongoing information search can be defined as acquisition of external information regardless of sporadic purchase needs (Bloch et al. 1986).

Consumers acquire and process information through an ongoing information search and store the processed information in their long-term memory (Bettman 1979b). The information

stored in consumer's long-term memory forms his/her (prior) knowledge about the product class. When a need arises to evaluate a product and/or to make a decision, a consumer first attempts to retrieve this information from his/her long-term memory (Vogt and Fesenmaier 1998). If the information the consumer retrieves from his/her long-term memory is adequate, s/he makes the decision based on what s/he has in his/her long-term memory (internal information). If the internal information is not enough, consumer utilizes external information sources to gather information to make a decision.

Prior information search literature has conceptualized external information search in terms of degree (Schul and Crompton 1983; Fodness and Murray 1997) and direction (Fodness and Murray 1997; Snepenger et al. 1990). Degree of external information search refers to the number of sources used and the amount of time devoted to the external information search. Direction of search refers to the specific external information sources utilized (Fodness and Murray 1997). Gursoy and Chen (2000) reported that travelers to international destinations are likely to acquire information from twelve different external sources. These twelve external information sources are (1) airlines directly, (2) in-flight information systems, (3) national government tourist office, (4) state/city travel office, (5) friends or relatives, (6) travel agency, (7) travel guides, (8) tour company, (9) corporate travel department, (10) newspapers/magazines, (11) TV/radio, and (12) personal computer.

The degree of pre-purchase external information search is directly related to the type of product consumers' intend to purchase. Consumers tend to engage in more search when purchasing higher priced, more visible, and more complex products, which intrinsically create

greater perceived risk (Beatty and Smith 1986), such as travel to unknown destinations. Fodness and Murray (1998) examined how travelers make systematic use of information available to them for vacation planning. They found that leisure travelers combine available information sources rationally. Travelers do not depend on one type of information source. Even though travelers use a combination of available information sources, they distinguish information sources on spatial, temporal, and operational dimensions. Travelers use a limited set of information strategies and each of these strategies exhibits unique combinations of spatial, temporal, and operational dimensions (Fodness and Murray, 1998).

The above discussion led to the following hypothesis:

**Hypothesis 6: There is a direct negative relationship between internal search and external search.**

### **Chapter Summary**

This chapter defined the constructs to be studied based on the conceptualization and previous empirical and theoretical studies, presented the full theoretical model (Figure 2.1) and the hypotheses established by the theoretical model to be empirically tested by this study. While there could be other factors that would affect the traveler's information search behavior for tourism products, it is believed that this study has incorporated the relevant variables necessary to answer the three research questions stated in chapter I.

The first section of this chapter presented the literature relevant to consumer's information search behavior from tourism, leisure and recreation and consumer behavior fields. It served as a background behind the research questions addressed by the study. The second section examined the internal and external information search strategies utilized by travelers and discussed shortcoming of information search literature in tourism field.

The first research question examines the relationship between familiarity and expertise, specifically the influence of familiarity on expertise. Expertise is examined as having five-dimensions: automaticity, expertise in building cognitive structures, expertise in analysis, expertise in elaboration and expertise in utilizing memory. However, to measure traveler's expertise, summated scales will be used. Each dimension of expertise will be measured as a single construct with three or more indicators. Afterwards, variables that are used to measure each construct will be summated. Summated scales of all five dimensions of expertise will be used altogether to assess travelers' expertise. The first research question will be address by hypotheses 1.

The second research question addresses the influence of familiarity and expertise on travelers' utilization of internal or/and external information searches. These relationships will be examined through hypotheses 2,3, 4 and 5. The examination of these hypotheses will reveal the strength of relation between familiarity and expertise and utilization of information sources.

The final research question addresses the influence of travelers' utilization of internal information search on their utilization of external information search. This relationship will be examined through hypothesis 6. The examination of this hypotheses will reveal the strength of relation between internal information search and external information search The level of significance of the hypothesized relationships, the weights of the path coefficients, and the indication of driving factors of each construct will be discussed in greater detail in Chapter III and Chapter IV through structural equation modeling (SEM).

The next chapter (Chapter III) provides a summary of research hypotheses and discusses research design and methodology in detail. The items that are going to be utilized to measure constructs are also discussed in the next chapter.

## **CHAPTER III – METHODOLOGY**

### **Introduction**

The preceding chapters defined the research problems and the theoretical framework that comprises the constructs to be addressed by this study. This chapter will detail the methodology that is used in this study to test the research hypotheses. The first section of the chapter will discuss the theoretical model developed from the theoretical framework and the research hypotheses to be empirically tested in this study. The second section will present the statistical method that is used in this study, structural equation modeling. The third section will describe sample and the survey method employed in this study. The fourth section will discuss the measures and scaling that are utilized to measure constructs. The fifth section will address how the proposed measurement scales and the survey instrument are pretested. The final section will address the issues of reliability and validity of measurement scales.

### **Research Framework**

There are three research questions addressed by this study, as stated in Chapter I. The first is to examine the influence of familiarity on expertise. Expertise is examined as having five dimensions: expertise in utilizing memory, automaticity, expertise in building cognitive structures, expertise in analysis and expertise in elaboration. To simplify the analysis and presentation summated scales are used to measure each dimension of expertise and the resulting five summated scales form the expertise construct. The second research question is to determine

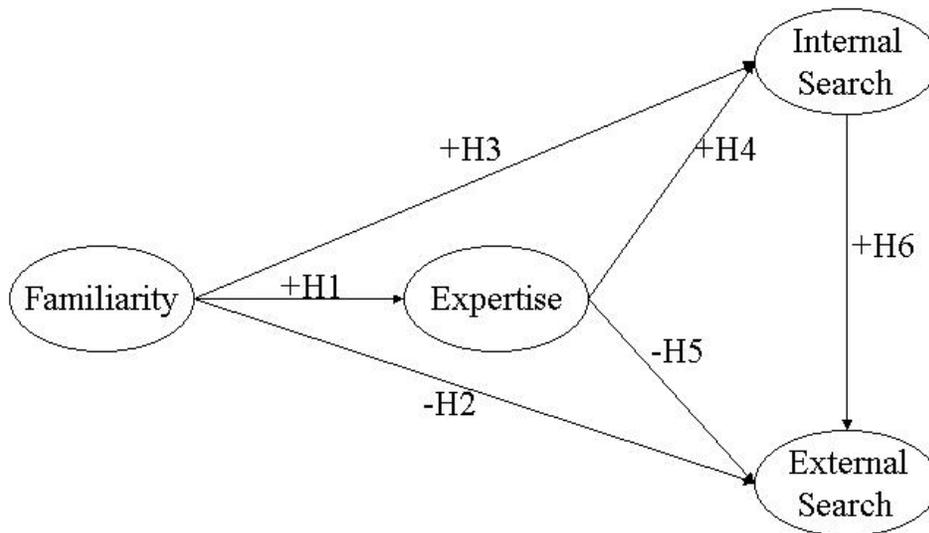
the influences of familiarity and expertise on travelers' information search behavior. The final research question is to determine the influence of travelers' utilization of internal information search on their utilization of external information search.

In order to accomplish the objectives of this study, a theoretical model (Figure 2.1) was developed and proposed that incorporates several bodies of literature from tourism, recreation and consumer behavior fields. The literature in the area of information search indicated that travelers' are likely to utilize internal and/or external information searches to make vacation decisions. Travelers' information search behavior is likely to be influenced by several factors. The most important factor that is likely to influence travelers' information search behavior is their prior product knowledge and prior product knowledge has two components: familiarity and expertise. Literature also suggested that travelers' familiarity and expertise and travelers' information search behavior are likely to be influenced by previous visits, involvement, learning and the cost of information search behavior. Arguments have also been made that previous visits are likely to influence travelers' involvement and their involvement is likely to influence their learning.

The results of the review of these bodies of literature provided the justification for the theoretical model that depicts the factors that are likely to influence travelers' information search behavior. The literature also indicated that travelers' prior product knowledge should be examined as a multi-dimensional construct: familiarity and expertise.

Even though a very complex model of travelers' information search behavior was proposed due to the complex nature of the proposed model and to accomplish the objectives of the research questions of this study, only part of the model was empirically tested. Figure 3.1 presents the theoretical model and the empirically tested hypotheses in this study. The empirically tested theoretical model examines the impacts of travelers' prior product knowledge (i.e., familiarity and expertise) on their information search behavior (i.e., internal search and external search). The empirically tested theoretical model also examines the impact of travelers' familiarity on their expertise and the impact of their utilization of internal information search on their utilization of external information search. The theoretical model is the basis for generating the research hypotheses to be empirically tested by this study. The next section of this chapter presents those hypotheses.

**Figure 3.1**  
**Empirically Tested Model and the Hypotheses**



## **Research Hypotheses**

The following is a listing of the hypotheses that are presented in the theoretical model to be empirically tested in this study.

**Hypothesis 1: There is a direct positive relationship between familiarity and expertise.**

**Hypothesis 2: There is a direct negative relationship between familiarity and external search.**

**Hypothesis 3: There is a direct positive relationship between familiarity and internal search.**

**Hypothesis 4: There is a direct positive relationship between expertise and internal search.**

**Hypothesis 5: There is a direct negative relationship between expertise and external search.**

**Hypothesis 6: There is a direct negative relationship between internal search and external search.**

## Statistical Method to be Employed

Structural equation modeling (SEM) is utilized to empirically test the relationships between the constructs in this study. SEM allows simultaneous estimation of: 1) a measurement model that relates the items in each scale to the construct they represent, giving factor loadings for each item; and 2) a structural model that relates constructs to one another, providing parameter values (i.e., path coefficients). This method was chosen so that both an a priori model accounting for measurement error in the construct and their respective scale measurements and simultaneous estimation of those relationships for the complex model can be achieved (Anderson and Gerbing 1988). The properties of the items of the constructs in the proposed model and the hypotheses are tested using the LISREL 8 structural equation analysis package (Joreskog and Sorbom 1993) with maximum likelihood (ML) method of estimation (for recommendations for ML see Anderson and Gerbing 1988; Bentler 1983), in combination with the two-stage process recommended by Sethi and King (1994) and Anderson and Gerbing (1988).

As fit indices, the chi-square statistics (and associated  $P$  values) are examined first. However, as noted by Joreskog (1993, p. 309) “since chi-square is  $N-1$  times the minimum value of the fit function, the chi-square test tends to be large in large samples”. Because of the large effect of sample size on the chi-square values (and associated  $P$  values), other fit indices are also selected to measure the fit of the tested models based on the recommendations of several researchers from a number of different disciplines. These selected fit indices are the goodness-of-fit index (GFI; Joreskog and Sorbom 1989), the normed-fit index (NFI; Bentler and Bonet 1980), the parsimonious normed-fit index (PNFI; Mulaik, James, Alstine, Bennett, Lind and Stilwell

1989), the non-normed-fit index (NNFI; see Hu and Bentler 1995), the comparative fit index (CFI; Bentler 1990) and the critical N statistic (Hoelter 1983). Values of GFI, NFI, CFI, NNFI, and PNFI range from zero to 1.00 with a value close to 1.00 indicating good fit (e.g., Byrne, 1989; Mulaik et al. 1989). A cut off of 200 or greater is suggested as an indication of adequate model fit for the critical *N* statistic (Bollen 1989; Hoelter 1983).

### **Measurement Model**

First a confirmatory measurement model that specifies the posited relations of the observed variables to the underlying constructs, with the construct allowed to intercorrelate freely is tested as recommended by Sethi and King (1994), Anderson and Gerbing (1988) and Joreskog (1993). They recommend the use of a measurement model to separate measurement issues from model structure issues. The use of confirmatory factor analysis (CFA ensures the uni-dimensionality of the scales measuring each construct in the model and avoids the interaction of the measurement and structural models that could affect the parameters associated with the hypothesized relationships between the constructs in the model. Therefore, before testing the overall measurement model, measurement uni-dimensionality of each construct is assessed individually (Sethi and King, 1994). Constructs with unacceptable fits are respecified by deleting the indicators that have not worked out as planned to preserve the potential to have uni-dimensional measurement (Anderson and Gerbing, 1988).

After assessing the uni-dimensionality of each construct individually (Sethi and King, 1994), a measurement model for each pair of constructs is estimated, combining them two by two (Joreskog, 1993). First, each construct's fit is measured. After making sure that the fit of

each construct is acceptable, the fit of two constructs (a pair) is measured. All constructs are paired with each other. For example, assume that we have three constructs, A, B, and C. First, constructs is paired as AB, AC, BC (all possible pairs). Afterwards, each pair of constructs' fit is measured separately to make sure that indicators of each construct do not load on other constructs. Then, the overall measurement model fit is tested (Anderson and Gerbing, 1988; Joreskog, 1993; Sethi and King, 1994).

### **Structural Equation Model**

The structural portion of the SEM allows for the testing of multiple equations with multiple dependent variables. This statistical method provides parameter values (i.e., path coefficients) for each of the research hypotheses and determines their respective significance. As recommended by Anderson and Gerbing (1988) for assessing the structural model under a two-step approach, first a series of nested structural models is tested to identify the best structural model that fits the data. A nested model is a model that is nested within another model when its set of freely estimated parameters is a subset of those estimated in another model. The first model is the null structural sub-model ( $M_n$ ) in which all parameters relating the constructs to one another are fixed at zero. The second model is the theoretical model ( $M_t$ ) that was illustrated in Figure 2.1. The third model is the saturated model ( $M_s$ ) that estimates all parameters relating the constructs to one another. This model is formally equivalent to the confirmatory measurement model.

Before testing all three nested models, whether any structural model has an acceptable goodness of fit is assessed as recommended by Anderson and Gerbing (1988) and Bentler and

Bonett (1980). To assess whether any structural model has acceptable goodness of fit, a pseudo chi-square test is utilized (Bentler and Bonett, 1980) in which a pseudo chi-square statistic is constructed from the chi-square value for the saturated model ( $M_s$ ) (the smallest chi-square value possible for any structural model) with the degrees of freedom from the null structural sub-model ( $M_n$ ). An insignificant pseudo chi-square test indicates that one or more structural models are likely to give acceptable fit. On the other hand, a significant pseudo chi-square test indicates that no structural model would give acceptable fit, because it would have a chi-square value greater than or equal to the value for the saturated model ( $M_s$ ) with fewer degrees of freedom than for the null structural sub-model ( $M_n$ ). However, one should remember pseudo chi-square values tend to be large in large samples and complex models because pseudo chi-square value is calculated based on the chi-square value. Therefore, caution is advised when assessing the fit of any model based on the results of the pseudo chi-square test, especially when the sample size exceeds 200 and when the model is complex. Researchers suggest that other fit indices should also be utilized to assess the fit of any model. As stated earlier other fit indices are also utilized to measure the fit of the tested models. These selected fit indices are the goodness-of-fit index (GFI; Joreskog and Sorbom, 1989), the normed-fit index (NFI; Bentler and Bonett, 1980), the parsimonious normed-fit index (PNFI; Mulaik et al., 1989), the non-normed-fit index (NNFI; see Hu and Bentler, 1995), the comparative fit index (CFI; Bentler, 1990) and the critical N statistic (Hoelter, 1983).

## **Research Design**

### **Survey Instrument**

The survey that was used in this study was a questionnaire that consisted of two parts. The first part consisted of scale items that utilize a 5-point Likert type scales. The anchors included: a) strongly disagree to strongly agree, b) not likely at all to very likely and c) not very important to very important. The second part of the questionnaire gathered demographic information on leisure travelers to domestic and international destinations.

### **Data Collection**

A self-administered survey questionnaire was used to collect data. The questionnaire was delivered via the U.S. postal service to the randomly selected sample of Virginia residents. Several measures were employed in an effort to enhance the response rate. A cover letter that signed individually in blue ink and contains the name and address of the respondent in an attempt to show personalization was attached to each questionnaire. A self addressed, stamped envelope was included in the package being mailed. Three weeks after the survey was mailed, a reminder postcard was sent to those who had not returned their survey (Dillman 1978).

### **Sample**

The sample for the study included leisure travelers to domestic and international destinations who were at least 18 years of age or older. Sample included residents of Virginia. First, a stratified sampling method was utilized to determine the number of respondents required from each county and city of Virginia. Afterwards, a random sampling was used to select pre-

determined number of respondents from each county and city of Virginia. The sample (mailing list) for this study was obtained from ReferenceUSA database (<http://www.referenceusa.com/>) residential information section. ReferenceUSA's residential information is compiled from more than 3,900 White Page telephone directories. Each listing appears in the database exactly as it appears in the phone book. ReferenceUSA does not include unlisted phone numbers.

It is suggested that a minimum size of sample should be at least 100 to ensure appropriate use of SEM and to minimize the chance of getting good or perfect goodness-of-fit indices due to small sample size. However, large sample sizes, over 400, are also likely to be problematic because they are likely to result in poor goodness-of-indices. The targeted usable sample size for this study was set at 400. Previous travelers' information search behavior studies reported a response rate between 33% and 62% (Fodness and Murray 1997, 1998,1999; Perdue 1985; Vogt and Fesenmaier 1998). All of these studies used samples that had already requested information from a destination (Perdue 1985; Vogt and Fesenmaier 1998) or that participated in a welcome center study (Fodness and Murray 1997, 1998,1999) and the studies conducted were related to the destination for which information was requested or that was visited. This may explain the high response rate because respondents were already highly involved with the destination. They were either considering visiting the destination or they had already been to the destination. Response rates tend to be low with mail surveys, 30% response rates for general population surveys are common, although rates can be as low as 10%, depending on the questionnaire content and design (Smith 1995). This study took a conservative approach and assumed a response rate of 20%. Assuming a conservative response rate of 20%, nearly 2,000 ( $400/0.20$ ) people were surveyed to achieve the targeted sample size.

## Measurement Variables

The measurement variables in SEM represent the scale items for each construct to be measured. Each construct in the proposed model (Figure 3.1) is designated as either an endogenous or an exogenous construct. An endogenous construct is one that receives a directional influence from some other construct in the model. That is, an endogenous construct is hypothesized to be affected by another construct in the model (MacCallum 1995). For example, expertise is one of the three endogenous variables in the model. It is proposed as endogenous constructs because travelers' expertise is hypothesized to be affected by travelers' familiarity. An endogenous construct may also emit directional influence to some other construct in the model, but not necessarily (MacCallum 1995). For example, expertise is hypothesized to affect internal search and external search. However, external search does not emit any directional influence to any of the other constructs. An exogenous construct is one that does not receive a directional influence from any other construct in the model. Exogenous constructs typically exert directional influences on one or more endogenous constructs (MacCallum 1995).

The theoretical model for this study is represented by one exogenous variables/constructs (familiarity) and three endogenous variables/constructs (expertise, internal search and external search). For most of the constructs that are utilized in this study, there are no standard measurement scales. Scales that were used in other fields such as consumer behavior to assess similar constructs are adopted to measure the constructs proposed in this study. The Cronbach's Alpha scores for adopted scales are reported if they were reported by researchers who developed

and/or utilized those scales. If there is no standard measurement scale available to measure a construct, a new measurement scale is proposed to assess the construct. Validity and reliability of measurement scales that are developed for this study are assessed through a pretest. The pretest procedure that is followed is discussed after the explanation of measurement scales. This section of the chapter will detail the scales and scale items to be employed in the measurement of all the constructs.

### **Exogenous Variable**

One exogenous construct that is presented in the theoretical model (Figure 3.1) is familiarity. In the next section, familiarity construct and measurement items that are utilized to assess familiarity construct are discussed.

### **Familiarity**

Four items are proposed to measure travelers' familiarity. The first three items are adopted from Park et al. (1994). They utilized these three items to measure consumers' self-assessed knowledge. This measure is consistent with measures that are used to measure familiarity because consumers' familiarity with a product category reflects their direct and indirect self-assessed knowledge of a product category (Alba and Hutchinson 1987). Park et al. (1994) reported that the standardized Cronbach's Alpha for these items was 0.91. A seven-point Likert type totally agree-totally disagree scale is used to measure these items. Three items that are proposed to measure travelers' familiarity are:

1. Compared to average person, I am very familiar with a wide variety of vacation destinations.
2. Compared to my friends, I am very familiar with a wide variety of vacation destinations.
3. Compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations.

The fourth item that is proposed to measure travelers' familiarity is developed based on the fact that familiarity represents early stages of learning. Consumers are likely to gain knowledge and, therefore, familiarity through an ongoing information search such as reading guidebooks, other related books, advertising and write ups in newspapers and magazines, watching advertisements on TV, listening to advertising on radio and talking to friends and relatives, etc. The fourth item is also measured on a seven-point Likert type totally agree-totally disagree scale. The fourth item is:

4. I try to improve my knowledge about vacation destinations.

Since a new item is added to the measurement scale, validity and reliability of this measurement scale are tested through a pretest.

### **Endogenous Variables**

Three endogenous constructs that are presented in the theoretical model (Figure 3.1) are expertise, internal search and external search. In the next section, these three constructs and measurement items that are utilized to assess these three constructs are discussed.

## **Expertise**

Alba and Hutchinson (1987) proposed that there are at least five qualitatively distinct aspects of expertise. These are automaticity, expertise in utilizing memory, expertise in building cognitive structures, expertise in analysis and expertise in elaboration. The type of expertise required to perform a product related task will vary based on the type of product related task because different tasks require different types of expertise. Moreover, more than one type of expertise is generally required for the successful performance of a particular task (Alba and Hutchinson 1987). Therefore, for the purpose of this study, all five dimensions of expertise are measured. After measuring all five dimensions, items that are used to measure each dimension are summated and summated scales are used to assess expertise. The next section discusses the items that are proposed to measure each dimension of expertise.

### ***Automaticity***

Five items are proposed to be used to measure automaticity. The first item is adopted from Kaufman, Lane and Lindquist's (1991) polychronic attitude index. The second item is adopted from Raju's (1980) exploratory tendencies in consumer behavior scales. The last three items are developed for this study. These five items are measured on a seven-point Likert type totally agree-totally disagree scale. These items are:

1. I am comfortable doing several things at the same time.
2. If I like a vacation destination, I rarely switch from it just to go somewhere different.
3. I am likely to choose a different vacation destination every time I travel.

4. I prefer to stay at the same hotel brand (e.g. Holiday Inn, Marriott, etc.) whenever I travel.
5. When it comes to planning a vacation, I like to make all the decisions in a short period of time.

The first and fifth items are proposed based on the proposition that automatic processes can be performed with minimal effort and without conscious control (Alba and Hutchinson 1987; Bargh 1984; Fisk 1986; Hasner and Zacks 1979, 1984; Welford 1976; Zacks et al. 1986). Automatically processed tasks can be performed simultaneously with other tasks without significant reduction in efficiency because automaticity “frees up” resources for use in other processes and, thus, improves overall performance. The second and third items are proposed based on the fact that once a stimulus-response relation has been automatized, it is difficult to change (Neves and Anderson 1981; Shiffrin and Dumais 1981). The fourth item is developed because consumers are likely to detect their preferred brand without conscious control and whenever the stimulus is present (Bargh 1984). During the coding, the second, fourth and fifth items are going to be reverse coded. Validity and reliability of this four-item measurement scale are determined through a pretest.

### ***Expertise in Utilizing Memory***

Five items are proposed to be used to assess expertise in utilizing memory. These items are developed from the relevant literature. These items are measured on a seven-point Likert type totally agree-totally disagree scale. These items are:

1. I can easily recall activities offered in the destination I named at the beginning of the survey.
2. Whenever I hear the word “vacation” I tend to think of the destination I named at the beginning of the survey.
3. I can easily compare vacation destinations based on what I know.
4. I still remember what I did during my vacation at the destination I named at the beginning of the survey.
5. When I close my eyes, I can easily picture the destination I named at the beginning of the survey.

The first and fourth items are developed because experts continually receive greater exposure to particular brand and attributes and their memory for that information is likely to be better. Therefore, experts should be more likely to recall brand information spontaneously (Crowder 1976; Hintzman 1976; Moorthy et al. 1997). The second and fifth items are developed based on the fact that recall is affected by the number of facts a customer has accumulated, knowledge of the importance and typicality of those facts, and understanding of how those facts are related. In many consumer situations, the recall of brand names is cued by either product class or specific attribute information (Nedungadi 1990). The third item is developed because consumers who are low in expertise are likely to engage in less search, lack expertise to use retrieval cues and are less equipped to make product comparisons (Alba and Hutchinson 1987; Bettman 1979b). Validity and reliability of this measurement scale are determined through a pretest. Pretest procedure that is followed is discussed after the explanation of measurement scales.

### ***Expertise in Building Cognitive Structures***

Five items are proposed to assess expertise in building cognitive structures. These items are developed from the relevant literature. These items are measured on a seven-point Likert type totally agree-totally disagree scale. These items are:

1. I can easily differentiate vacation destinations based on the attractions offered.
2. If I am given a list of vacation destinations, I can easily group those vacation destinations that offer similar attractions.
3. I can easily list several destinations that are similar to the destination I named at the beginning of the survey.
4. When I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any other attractions) I can easily list several of them.
5. I don't know any vacation destination that is similar to the destination I named at the beginning of the survey.

The first two items are developed based on the proposition that the principal function of cognitive structure is to differentiate various products and services in ways that are useful for decision-making. One way of differentiating various products and services for consumers is to categorize them. The application of category structures to differentiate objects is well documented in both psychology (Medin and Smith 1984; Smith and Medin 1981) and consumer behavior (Alba and Hutchinson 1987; Brucks 1986; Cohen 1982; Sujon 1985). The third and fifth items are developed because an increased ability to categorize products below the basic

level enables consumers to make brand-level evaluations. Therefore, customers who are expert with the product category should be more able to avoid confusion between brands and remember brand specific information. The development of categories below the basic level should permit experts to consider a more homogeneous set of alternatives than do novices when their need is specific (Ozanne et al. 1992). During the coding, the fifth item is reverse coded. Validity and reliability of this measurement scale are determined through a pretest. Pretest procedure that is followed is discussed after the explanation of measurement scales.

### ***Expertise in Analysis***

Seven items are proposed to assess expertise in analysis. The first four items are developed for the purpose of this study. The last three items are adopted from Cacioppo and Petty's (1982) need for cognition scale. These items are measured on a seven-point Likert type totally agree-totally disagree scale. These four items are:

1. When I make vacation decisions I am likely to rely on other people's opinions (For example, travel agents and/or friends and relatives opinions).
2. When I make vacation decisions I am likely to evaluate destination specific facts (e.g. number of attractions, dining facilities, etc.).
3. I do not think that I need to analyze all the available information about a destination to make my vacation decision.
4. I do not think that all of the available information is useful in choosing a vacation destination.

5. I am usually tempted to put more thought into a vacation destination selection decision than it requires.
6. More often than not, more thinking about vacation decision just leads to more errors.
7. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.

The first four items are proposed based on the fact that travelers who are low in expertise may find some of the available information (product related facts) to be less useful and less interesting because of their limited ability to comprehend and evaluate product related facts (Anderson and Jolson 1980) and, therefore, they may be more influenced by nonproduct information such as a salesperson's opinion (Brucks 1985). During the coding, the third and fourth items are reverse coded. The last three items are developed based on the proposition that analytic processing generally requires more effort than non-analytic processing due to the fact that search (external or internal) extends beyond the most accessible information, and irrelevant information must be ignored or discounted (Alba and Hutchinson 1987). Therefore, experts are likely to be more analytic and put more thought into a vacation destination selection decision. The sixth item is also reverse coded. Validity and reliability of this measurement scale are determined through a pretest.

### ***Expertise in Elaboration***

Five items are proposed to measure travelers' expertise in elaboration. All of the five items are developed from the relevant literature for this study. These items are measured on a seven-point Likert type totally agree-totally disagree scale. These items are:

1. Before I make a vacation decision, I am likely to simplify all the information I get from information sources such as travel agents, guidebooks, etc. (e.g., instead of remembering all the details, I simply say it is a good/bad and/or expensive/inexpensive).
2. Before choosing a vacation destination, I am likely to consider all the facts I know about the destination.
3. If my friends and relatives are having a hard time making their vacation decisions they are likely to come to me for help.
4. I am more likely to spend time thinking about a possible vacation destination information than other people.
5. I like making vacation decisions that require a lot of thinking and elaboration.

Many researchers have proposed that human beings have a limited capacity for processing information (Bettman 1976a). This implies that in making choices consumers cannot make complicated computations and engage in extensive processing without a good deal of effort. However, experts are more likely to deal with complex situations than consumers who are low in expertise. To assess respondents' expertise in dealing with complex situations the first two items are proposed. The first item is reverse coded. The third item is proposed because problem solving presents an almost unlimited potential for elaboration and the ability to solve problems is partially determined by one's expertise and knowledge (Sternberg 1986). The third and fourth items are developed because experts are more likely than novices to elaborate on given information and to do so accurately (Alba and Hutchinson 1987). Validity and reliability of this

measurement scale are determined through a pretest. The pretest procedure that is followed is discussed after the explanation of measurement scales.

### **Internal Information Search**

Five items are used to measure travelers' utilization of internal information search. These items are developed from the relevant literature for this study to assess travelers' utilization of internal information search (Beatty and Smith 1987; Vogt and Fesenmaier 1998). These five items are measured on a seven-point Likert type totally agree-totally disagree scale. The third and fifth items are reverse coded. These items are:

1. I make my travel decisions without gathering any information from any information sources.
2. I knew enough about the destination I named at the beginning of the survey before I decided to vacation there.
3. Before I start planning my vacation, I am likely to search for information.
4. I make my travel decisions based on what I already know.
5. The idea of relying on what I already know to make my vacation decision does not appeal to me.

Since this is a new scale proposed for this study, validity and reliability of this measurement scale are tested through a pretest. The pretest procedure that is followed is discussed after the explanation of measurement scales. The third and fifth items are reverse coded.

### **External Information Search**

Travelers' utilization of external information search is proposed to be measured by eight items. These eight items were developed based on the items developed by Moorthy et al. (1997) to measure total amount of external search effort of automobile buyers. They proposed a measurement scale with seven items. Because of the differences in external information sources available to automobile buyers and travelers, eight items are proposed to measure travelers' total amount of external search. Moorthy et al. (1997) tested the scale on two groups of automobile buyers: the ones who had already purchased an automobile and the ones who were in the process of purchasing an automobile. They reported that the Cronbach's Alphas for the search measure were 0.86 for the in process respondents and 0.82 for respondents who had already purchased. These items are also consistent with measures that are used to assess travelers' utilization of external information search (Schul and Crompton 1983; Fodness and Murray 1997, 1998, 1999; Raitz and Dakhil 1989; Snepenger and Snepenger 1993). The proposed eight items are measured on a seven-point Likert type very likely-very unlikely scale. These eight items are:

How likely are you to engage in the following before you make a vacation decision?

1. Get information from friends and family.
2. Get information from travel consultants (e.g., travel agents).
3. Get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce).
4. Get information from TV, radio, newspaper and/or magazine advertisements.
5. Get information from magazine articles and/or reports.

6. Get information from the Internet.
7. Get information from state/city travel offices.
8. Get information from national government tourist offices.

### **Pretest of the Measurement Instrument**

Since most of the measurement items are developed for the purpose of this study, pretest of the measurement instrument is necessary to validate the items in the scales. A pretest of the measurement instrument is conducted in several stages. First, the survey questionnaire is circulated to several faculty and graduate students in the Department of hospitality and Tourism Management at Virginia Polytechnic Institute and State University. Participants are asked to provide feedback regarding the layout, wording, and ease of understanding of the measurement items. The feedback is then taken into account in the revision of the questionnaire.

The revised questionnaire is pretested using a convenience sample of undergraduate and graduate students, faculty and residents of Blacksburg, VA. The responses from pretest are analyzed to test the reliability and validity of the measurement items. The questionnaire is revised based on the reliability and validity test and the final version of the questionnaire is developed. The questionnaire is produced in a booklet form.

## Reliability and Validity

Reliability deals with how consistently similar measures will produce similar results (Rosenthal and Rosnow 1984). Reliability has two dimensions: repeatability and internal consistency (Zikmund 1995). The dimension of internal consistency refers to the ability of a scale item to correlate with other items of the same scale that are intended to measure the same construct. The adequacy of the individual items and the composites are assessed by measures of reliability and validity. The reliability of the measurement instrument is assessed by the Cronbach's Alpha reliability and composite reliability. A Cronbach's Alpha and composite reliability score of .70 or higher indicate that the measurement scale that is used to measure a construct is reliable. The composite reliability, as calculated with LISREL estimates, is analogous to coefficient alpha and is calculated by the formula provided by Fornell and Larcker (1981).

Validity refers to the accuracy of a measurement, or how well the measurement taps what it is designed to measure (Rosenthal and Rosnow 1984). There are several different types of validity to be concerned: face/content validity (i.e., the agreement among professionals that the scale is measuring what it is supposed to measure), criterion validity (i.e., the degree of correspondence between a measure and a criterion variable, usually measured by their correlation) and construct validity (i.e., the ability of a measure to confirm a network of related hypotheses generated from a theory based on constructs) (Bollen 1989; Zikmund 1997)

The face validity of the measurement instrument is assessed by allowing several professors to examine it and provide feedback for revision. Afterwards, the survey instrument is

given to several graduate students majoring in hospitality and tourism management to solicit feedback as well as to check for readability of the questions and estimated time to complete the survey questionnaire. Additionally, a formal pretest is conducted on a convenience sample.

Discriminant validity is assessed for every possible pair of constructs by constraining the estimated correlation parameter between them to 1.0 and then performing a chi-square difference test on the values obtained for the constrained and unconstrained models (Anderson and Gerbing, 1988). A significantly lower chi-square value in an unconstrained model indicates that discriminant validity is achieved.

Convergent validity is assessed from the measurement model by determining whether each indicator's estimated pattern coefficient on its posited underlying construct factor is significant.

### **Chapter Summary**

This chapter has been devoted to presenting the research methodology for the study. The statistical procedures that are used to empirically test the research hypothesis of the theoretical model were presented; the research design including data collection methodology, the sample and survey instrument, the measurement scales that is used and the pretest were discussed; and the issues of reliability and validity were addressed.

## **CHAPTER IV – ANALYSIS AND RESULTS**

### **Introduction**

This chapter presents the results of the data analysis and hypothesis testing. In the first section of this chapter, the pretest of the scale items used in this study is presented including a description of the sample. This is followed by a section that provides a description of the survey method employed in this study and the demographic profiles of the final survey respondents. The third section of the chapter presents the results of the confirmatory factor analysis conducted to confirm the five-factor structure of the expertise construct. The fourth section of the chapter presents a discussion of the data analysis steps. This is followed by a section that presents a discussion of the procedures for the validity checks in detail and the results of the hypothesis testing.

### **Pretest**

As stated in Chapter III, before the final survey instrument could be prepared, it was necessary to conduct a pretest of scale items. The purpose of the pretest was to validate the scale items to be used in the study that were either developed specifically for this study or modified from previous studies.

Development of the measurement scales for this study followed the procedures recommended by Churchill (1979) and DeVellis (1991) for developing a standardized survey

instrument. The initial task in developing a scale is to devise an item pool (Lankford and Howard 1994; Liu, Sheldon and Var 1987; Liu and Var 1986). A total of 44 items were developed or identified from the literature: four items to measure familiarity, 27 items to measure expertise (five items to measure automaticity; five items to measure expertise in utilizing memory; five items for expertise in building cognitive structures; seven items to assess expertise in analysis; and five items to measure travelers' expertise in elaboration), five items to measure internal information search and eight items to measure external information search. The content validity of the items was first assessed by seven professors (Appendix A). The professors were asked to provide comments on content and understandability. They were then asked to edit and improve the items to enhance their clarity, readability and content validity. They were also asked to identify any of the scale items that were redundant with other scale items and to offer suggestions for improving the proposed scale. Afterwards, the measurement items were distributed to 14 graduate students. They were also asked to comment on content and provide additional questions that might improve the scale and understandability, and asked to identify any of the scale items that were redundant with other scale items. Based on the suggestions, one additional question was added to the measurement scale that measures the automaticity sub-construct of expertise and another item was added to the items that measures expertise in utilizing memory. Therefore, the total number of items was increased to 46.

The second pretest was to empirically test the newly developed and the modified scale items that had been drawn from previous studies. This step in the pretest is discussed in detail in this section of the chapter.

## **Pretest Survey Method**

The pretest survey was distributed by several methods. One method was to send it as an e-mail attachment in Word 2000 format. This method allowed the respondent to take the survey on his or her computer, save the file in Microsoft Word format and then send it back to a designated e-mail address as an attachment. The respondent could also print out the survey, take it by hand and fax it back to a specified fax number or mail it to a specified mailing address. Another method used was to place the printed questionnaires into graduate students' and faculty mailboxes. This method allowed respondents to complete the survey and drop it in a designated mailbox. A third method used to gather data for the pretest was to hand-deliver the survey to four locations: two coffee shops, a local gym and a community college. The survey was handed out to respondents who were asked to return it to a designated person after completion.

## **Pretest sample**

A convenience sample was used to conduct the pretest. The sample consisted of faculty, graduate students and undergraduate students of Virginia Tech; faculty and students of a community college; and Blacksburg, VA residents. Permission to conduct the survey in the coffee shops and in the gym was obtained from the owners or the manager on duty prior to conducting the survey. The survey was handed out at the dining hall of the community college.

The majority of responses were received from the two coffee shops: 91 from one and 66 from the other one. A total of 26 responses were received from the community college, 24 from the local gym and 17 responses were received through email. No responses were received via fax or by mail.

The final pretest sample size was 224. The recommended guidelines for principal component analysis are at least 50 responses and a ratio of 5 responses for every 1 variable in each scale being measured. This sample size exceeded the suggested guideline of 50 respondents and it also met the ratio criteria for all scales being measured. Table 4.1 presents the demographics of the pretest sample.

| <b>Table 4.1<br/>Demographic Profile of the Pretest Sample (N = 224)</b> |          |          |
|--|----------|----------|
| <b>Category</b>  | <b>%</b> | <b>N</b> |
| <b>Gender</b>  |          |          |
| Male   | 55.4     | 124      |
| Female   | 44.6     | 100      |
| <b>Age</b>   |          |          |
| Under 25   | 38.4     | 86       |
| 25 – 34  | 40.6     | 91       |
| 35 – 44  | 12.1     | 27       |
| 45 – 54  | 6.7      | 15       |
| 55 – 65  | 1.3      | 3        |
| <b>Marital Status</b>  |          |          |
| Now Married  | 28.1     | 63       |
| Widowed  | .9       | 2        |
| Divorced   | 7.6      | 17       |
| Separated  | .9       | 2        |
| Never Married  | 62.5     | 140      |
| <b>Household Income</b>  |          |          |
| 9,999 or less  | .9       | 2        |
| 10,000 – 19,000  | 28.1     | 63       |
| 20,000 – 29,999  | 18.8     | 42       |
| 30,000 – 39,000  | 8.5      | 19       |
| 40,000 – 49,999  | 7.1      | 16       |
| 50,000 – 59,999  | 5.8      | 13       |
| 60,000 or more   | 15.6     | 35       |

The demographics of the sample indicate that 55.4 percent of the respondents were male and 44.6 percent of them were female (Table 4.1.). A majority of respondents were never married (62.5%) while only 28.1 percent were married. Average age of the respondents was 28.7. The youngest respondent was 18 years of age while the oldest was 60 years of age. The average annual household income of respondents was \$33,642.

### **Results from the Pretest**

The results of the pretest provided the necessary validation in order to finalize the scale items to be used in the final survey. This section of Chapter IV will provide the discussion of which items were chosen and how they were determined to be valid.

One of the objectives of a pretest is to establish a uni-dimensional scale for the measurement of a construct. Uni-dimensionality refers to the existence of a single construct explaining a set of attributes. To detect scale dimensionality, an exploratory factor analysis (EFA) with a principal component method was conducted for each construct and sub-construct. A separate principal component analysis was conducted for each sub-construct because the items of each sub-construct were pre-determined. To determine the appropriateness of factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined. A value of .60 or above from the Kaiser-Meyer-Olkin measure of sampling adequacy test indicates that the data is adequate for exploratory factor analysis (Tabachnick and Fidel 1989). A significant Bartlett's test of sphericity is also required. In order to make sure that each factor identified by EFA has only one dimension and each attribute loads only on one factor. Attributes that had factor loadings of lower than .40 and attributes loading on more than one

factor with a loading score of equal to or greater than .40 on each factor were eliminated from the analysis (Chen and Hsu 2001; Hattie 1985).

### ***Familiarity***

The pretest of the familiarity construct included four potential scale items derived and modified from previous studies as noted in Chapter III. In order to determine the scale items, a principal component factor analysis was performed. To determine the appropriateness of factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined. The result of the Kaiser-Meyer-Olkin measure of sampling adequacy test indicated an acceptable level (.794); a value of .60 or above is required for a good factor (Tabachnick and Fidel 1989). The Bartlett's test of sphericity was also found to be significant at a level of .000 (Table 4.2).

The principle component factor analysis indicated that one factor represented 72.15% of the explained variance of the scale (Table 4.2). That factor comprised of four items with factor loadings greater than .40. Those items were: (1) compared to average person, I am very familiar with a wide variety of vacation destinations; (2) compared to my friends, I am very familiar with a wide variety of vacation destinations; (3) compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations; and (4) I try to improve my knowledge about vacation destinations (.902, .900, .863 and .719, respectively). The reliability of the four items measuring familiarity was determined to be .87 using Cronbach's Alpha reliability test, which exceeds the recommended reliability score of .70. Therefore, it was concluded that the familiarity construct can be measured by four items.

| <b>Table 4.2</b>   |                 |
|--|-----------------|
| <b>Factor Analysis Result from the Pretest of the 4-items Representing the Familiarity Construct (N = 224)</b> |                 |
| <b>Scale items/Factors</b>   | <b>Factor 1</b> |
| Compared to average person, I am very familiar with a wide variety of vacation destinations                    | .902            |
| Compared to my friends, I am very familiar with a wide variety of vacation destinations                        | .900            |
| Compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations           | .863            |
| I try to improve my knowledge about vacation destinations  | .719            |
| <b>Reliability coefficient (Cronbach's Alpha)</b>  | .87             |
| <b>Eigenvalue</b>  | 2.886           |
| <b>Variance explained</b>  | 72.15           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy  | .794            |
| The Bartlett's test of sphericity (significance level)   | .000            |

**Note:** Only factor loadings >.40 are shown.

Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

### *Expertise*

As stated in Chapters II and III, expertise was examined as having five dimensions: automaticity, expertise in utilizing memory, expertise in building cognitive structures, expertise in analysis and expertise in elaboration. Measurement scale properties of each dimension of expertise are discussed next. Since the factor structure of each dimension was pre-determined, a separate factor analysis was conducted for each dimension.

**Automaticity:** Six items were proposed to measure automaticity. Five of those items were identified from the literature as noted in Chapter III and one item was added based on the suggestions of professors who reviewed the questions. The pretest of automaticity scale items was conducted on those six items. To examine the uni-dimensionality of the construct, a principal component factor analysis was utilized. Results of the Kaiser-Meyer-Olkin measure of sampling adequacy test (.673) and the Bartlett's test of sphericity ( $p = .0.000$ ) indicated that data were acceptable for factor analysis (Table 4.3).

| <b>Table 4.3</b>   |                 |                 |
|--|-----------------|-----------------|
| <b>Factor Analysis Result from the Pretest of the 6-items Representing the Automaticity Construct (N = 224).</b>             |                 |                 |
| <b>Scale items/Factors</b>   | <b>Factor 1</b> | <b>Factor 2</b> |
| I am comfortable doing several things at the same time.  |                 | .825            |
| If I like a vacation destination, I rarely switch from it just to go somewhere different.*                                   | .732            |                 |
| I am likely to choose a different vacation destination whenever I travel.  | .739            |                 |
| I prefer to stay at the same hotel brand (e.g. Holiday Inn, Marriott, etc.) whenever I travel.*                              | .539            |                 |
| I tend to go back to destinations I have visited before because of social contacts with either residents or other visitors.* | .570            |                 |
| <b>Reliability coefficient (Cronbach's Alpha)</b>  | .64             |                 |
| <b>Eigenvalue</b>  | 1.886           | 1.197           |
| <b>Variance explained</b>  | 31.44           | 19.94           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy  | .673            |                 |
| The Bartlett's test of sphericity (significance level)   | .000            |                 |

**Note:** \* Reverse coded

Only factor loadings  $>.40$  are shown.

Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

The result indicated that one factor represented 31.44% of the explained variance in the scale (Table 4.3). That factor was comprised of four items with factor loadings greater than .40. Those items were: (1) if I like a vacation destination, I rarely switch from it just to go somewhere different; (2) I am likely to choose a different vacation destination whenever I travel; (3) I prefer to stay at the same hotel brand (e.g. Holiday Inn, Marriott, etc.) whenever I travel; and (4) I tend to go back to destinations I have visited before because of social contacts with either residents or other visitors (factor loadings of .732, .739, .539 and .570, respectively). It should be noted that a second factor was also indicated by the principal component factor analysis. This second factor could have contributed an additional 19.94% to the explained variance. However, the objective of the pretest was to establish a uni-dimensional scale for the measurement of the construct.

The Cronbach's reliability test indicated that the reliability score was .64, which is below the .70 guideline established in Chapter III. However, it was determined to be close enough to consider due to the fact that reliability scores that are between .60 and .70 represent the lower limit of acceptability (Hair, Anderson, Tatham and Black 1998).

**Expertise in Utilizing Memory:** The pretest of the expertise in utilizing memory construct included six potential scale items. Five of those items were derived and modified from previous studies as noted in Chapter III and one item was added based on the recommendations of professors who reviewed the items. In order to determine the scale items, a principal component factor analysis was performed. To determine the appropriateness of factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined.

The result of the Kaiser-Meyer-Olkin measure of sampling adequacy test indicated an acceptable level (.780). The Bartlett's test of sphericity was also found to be significant at a level of.000.

| <b>Table 4.4</b>  |                 |                 |
|---|-----------------|-----------------|
| <b>Factor Analysis Result from the Pretest of the 6-items Representing the Expertise in Utilizing Memory Construct (N = 224).</b> |                 |                 |
| <b>Scale items/Factors</b>  | <b>Factor 1</b> | <b>Factor 2</b> |
| I can easily recall activities offered in the destination I named at the beginning of the survey                                  | .710            |                 |
| I still remember what I did during my vacation at the destination I named at the beginning of the survey                          | .917            |                 |
| When I close my eyes, I can easily picture the destination I named at the beginning of the survey.                                | .739            |                 |
| I have often told others about my experience(s) at this destination   | .904            |                 |
| Whenever I hear the word "vacation" I tend to think of the destination I named at the beginning of the survey.                    |                 | .937            |
| <b>Reliability coefficient (Cronbach's Alpha)</b>   | .86             |                 |
| <b>Eigenvalue</b>   | 3.022           | 1.024           |
| <b>Variance explained</b>   | 50.37           | 17.07           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy   | .780            |                 |
| The Bartlett's test of sphericity (significance level)  | .000            |                 |

**Note:** Only factor loadings >.40 are shown  
 Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

The principle component factor analysis indicated that there were two factors. However, only one item loaded onto the second factor (Table 4.4). The first factor represented 50.37 % of the explained variance of the scale. That factor comprised of four (4) items with factor loadings greater than .40. Those items were: (1) I can easily recall activities offered in the destination I named at the beginning of the survey; (2) I still remember what I did during my vacation at the

destination I named at the beginning of the survey; (3) when I close my eyes, I can easily picture the destination I named at the beginning of the survey; and (4) I have often told others about my experience(s) at this destination (factor loadings of .710, .917, .904 and .806, respectively). The second factor could have contributed an additional 17.1% to the explained variance, however, the objective of the pretest was to establish a uni-dimensional scale for the measurement of the construct. Therefore, only the items that loaded on to the first factor were selected.

The Cronbach's reliability test yielded a Cronbach's Alpha reliability score of .86, which exceeds the .70 guideline set in Chapter III. Therefore, it was concluded that the proposed measurement scale to assess expertise in utilizing memory was reliable.

**Expertise in Building Cognitive Structures:** The pretest of the expertise in building cognitive structures construct was conducted using the five items that are proposed to assess the construct. Again, the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined to determine the appropriateness of factor analysis. Results indicated that it was appropriate to perform a factor analysis (Table 4.5). The principle component factor analysis indicated that there was only one factor, which represented 70.73 % of the explained variance of the scale. That factor was comprised of five items with factor loadings greater than .40. Those items were: (1) I can easily differentiate vacation destinations based on the attractions offered; (2) if I am given a list of vacation destinations, I can easily group those vacation destinations that offer similar attractions; (3) I can easily list several destinations that are similar to the destination I named at the beginning of the survey; (4) when I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any

other attractions) I can easily list several of them; and (5) I don't know any vacation destination that is similar to the destination I named at the beginning of the survey (factor loadings of .897, .900, .836, .844 and .715, respectively).

| <b>Table 4.5.</b>  |                 |
|--|-----------------|
| <b>Factor Analysis Result from the Pretest of the 5-items Representing the expertise in Building Cognitive Structures Construct (N = 224).</b>   |                 |
| <b>Scale items/Factors</b>   | <b>Factor 1</b> |
| I can easily differentiate vacation destinations based on the attractions offered.   | .897            |
| If I am given a list of vacation destinations, I can easily group those vacation destinations that offer similar attractions.  | .900            |
| I can easily list several destinations that are similar to the destination I named at the beginning of the survey.   | .836            |
| When I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any other attractions) I can easily list several of them. | .844            |
| I don't know any vacation destination that is similar to the destination I named at the beginning of the survey.*  | .715            |
| <b>Reliability coefficient (Cronbach's Alpha)</b>  | .89             |
| <b>Eigenvalue</b>  | 3.537           |
| <b>Variance explained</b>  | 70.73           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy  | .831            |
| The Bartlett's test of sphericity (significance level)   | .000            |

**Note:** \* Reverse coded.

Only factor loadings >.40 are shown.

Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

The reliability of the five items measuring the expertise in building cognitive structures construct was determined to be .89 using Cronbach's Alpha reliability test, which exceeds the

recommended reliability score of .70. Therefore, it was concluded that the expertise in building cognitive structures construct can be measured by five items.

**Expertise in Analysis:** The pretest of the expertise in analysis construct included seven (7) potential scale items derived and modified from previous studies as noted in Chapter III. Appropriateness of factor analysis was determined by examining the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity. Both tests indicated that it was appropriate to perform a factor analysis (Table 4.6).

The principle component factor analysis indicated that there were two underlying dimensions (factors). The first factor explained 50.17 % of the variance while the second factor explained only 16.2% percent of the variance (Table 4.6). While five items loaded on factor one, only two items loaded on factor two. For the purpose of uni-dimensionality, only those items that loaded on factor one were selected to measure the expertise in analysis construct. Those items were: (1) when I make vacation decisions I am likely to evaluate destination specific facts (e.g. number of attractions, dining facilities, etc.); (2) I do not think that I need to analyze all the available information about a destination to make my vacation decision; (3) I do not think that all of the available information is useful in choosing a vacation destination; (4) I am usually tempted to put more thought into a vacation destination selection decision than it requires; and (5) more often than not, more thinking about vacation decision just leads to more errors. The Cronbach's Alpha reliability test indicated that the proposed scale was reliable with a Cronbach's Alpha reliability score of .89.

| <b>Table 4.6</b><br><b>Factor Analysis Result from the Pretest of the 7-items Representing</b><br><b>the Expertise in Analysis Construct (N = 224).</b> |                 |                 |
|---|-----------------|-----------------|
| <b>Scale items/Factors</b>  | <b>Factor 1</b> | <b>Factor 2</b> |
| When I make vacation decisions I am likely to rely on other people's opinions (For example, travel agents and/or friends and relatives opinions).       |                 | .721            |
| When I make vacation decisions I am likely to evaluate destination specific facts (e.g. number of attractions, dining facilities, etc.).                | .811            |                 |
| I do not think that I need to analyze all the available information about a destination to make my vacation decision.*                                  | .848            |                 |
| I do not think that all of the available information is useful in choosing a vacation destination.*   | .879            |                 |
| I am usually tempted to put more thought into a vacation destination selection decision than it requires.   | .800            |                 |
| More often than not, more thinking about vacation decision just leads to more errors.*  | .824            |                 |
| I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.                                |                 | .758            |
| <b>Reliability coefficient (Cronbach's Alpha)</b>   | .89             |                 |
| <b>Eigenvalue</b>   | 3.512           | 1.134           |
| <b>Variance explained</b>   | 50.17           | 16.20           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy   | .848            |                 |
| The Bartlett's test of sphericity (significance level)  | .000            |                 |

**Note:** \* Reverse coded

Only factor loadings >.40 are shown

Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

**Expertise in Elaboration:** Five items were proposed to measure travelers' expertise in elaboration in Chapter III. Those five were utilized to conduct the pretest of the expertise in

elaboration construct. The Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined to determine the appropriateness of factor analysis. Results indicated that it was appropriate to perform a factor analysis (Table 4.7).

| <b>Table 4.7</b>   |                 |                 |
|--|-----------------|-----------------|
| <b>Factor Analysis Result from the Pretest of the 5-items Representing the Expertise in Elaboration Construct (N = 224).</b>   |                 |                 |
| <b>Scale items/Factors</b>   | <b>Factor 1</b> | <b>Factor 2</b> |
| Before I make a vacation decision, I am likely to simplify all the information I get from information sources such as travel agents, guidebooks, etc. (e.g., instead of remembering all the details, I simply say it is a good/bad and/or expensive/inexpensive).* |                 | .585            |
| Before choosing a vacation destination, I am likely to consider all the facts I know about the destination.  | .701            |                 |
| If my friends and relatives are having a hard time making their vacation decisions they are likely to come to me for help.   | .749            |                 |
| I am more likely to spend time thinking about a possible vacation destination information than other people.   | .788            |                 |
| I like making vacation decisions that require a lot of thinking.   | .889            |                 |
| <b>Reliability coefficient (Cronbach's Alpha)</b>  | .68             |                 |
| <b>Eigenvalue</b>  | 2.883           | 1.119           |
| <b>Variance explained</b>  | 47.63           | 12.37           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy  | .714            |                 |
| The Bartlett's test of sphericity (significance level)   | .000            |                 |

**Note:** \* Reverse coded  
 Only factor loadings >.40 are shown  
 Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

The principle component factor analysis indicated that there were two factors. However, only one item loaded on to the second factor (Table 4.7). The first factor represented 47.63% of

the explained variance of the scale. That factor was comprised of four items with factor loadings greater than .40. Those items were: (1) before choosing a vacation destination, I am likely to consider all the facts I know about the destination; (2) if my friends and relatives are having a hard time making their vacation decisions they are likely to come to me for help; (3) I am more likely to spend time thinking about a possible vacation destination information than other people; and (4) I like making vacation decisions that require a lot of thinking (factor loadings of .701, .749, .788 and .889, respectively). The second factor could have contributed an additional 12.37% to the explained variance, however, the objective of the pretest was to establish a uni-dimensional scale for the measurement of the construct. Therefore, only the items that loaded on to the first factor were selected.

The Cronbach's reliability test indicated that the reliability score was .68, which is below the .70 guideline established in Chapter III. However, it was determined to be close enough to consider due to the fact that reliability scores that are between .60 and .70 represent the lower limit of acceptability (Hair, Anderson, Tatham and Black 1998).

### ***Internal Information Search***

The pretest of the internal information search construct included seven potential scale items derived and modified from previous studies as noted in Chapter III. Appropriateness of factor analysis was determined by examining the Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity. Both tests indicated that it was appropriate to perform a factor analysis (Table 4.8).

The principle component factor analysis indicated that there were two underlying dimensions (factors). The first factor explained almost 43% of the variance while the second factor explained almost 16% percent of the variance. Three items loaded on factor one and only one item loaded on factor two. For the purpose of uni-dimensionality, only those items that loaded on factor one were selected. Those factors are: (1) I make my travel decisions based on what I already know; (2) I make my travel decisions without gathering any information from any information sources; and (3) before I start planning my vacation, I am likely to search for information.

| <b>Table 4.8</b>  |                 |                 |
|---|-----------------|-----------------|
| <b>Factor Analysis Result from the Pretest of the 5-items Representing the Internal Information Search Construct (N = 224).</b> |                 |                 |
| <b>Scale items/Factors</b>  | <b>Factor 1</b> | <b>Factor 2</b> |
| I make my travel decisions based on what I already know.  | .668            |                 |
| I make my travel decisions without gathering any information from any information sources.                                      | .712            |                 |
| Before I start planning my vacation, I am likely to search for information.*  | .722            |                 |
| The idea of relying on what I already know to make my vacation decision does not appeal to me.*                                 |                 | .684            |
| <b>Reliability coefficient (Cronbach's Alpha)</b>   | .71             |                 |
| <b>Eigenvalue</b>   | 2.879           | 1.065           |
| <b>Variance explained</b>   | 42.99           | 15.90           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy   | .706            |                 |
| The Bartlett's test of sphericity (significance level)  | .000            |                 |

**Note:** \* Reverse coded  
 Only factor loadings >.40 are shown  
 Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

The reliability of the three items measuring the internal information search construct was determined to be .71 using Cronbach's Alpha reliability test, which exceeds the recommended reliability score of .70.

### ***External Information Search***

Eight items were proposed to measure travelers' external information search behavior as noted in Chapter III. Those eight items were utilized to conduct the pretest of the external information search construct. The Kaiser-Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were examined to determine the appropriateness of factor analysis. Results indicated that it was appropriate to perform a factor analysis (Table 4.9). The principle component factor analysis indicated that there were two factors. The first factor represented 34.85% of the explained variance of the scale and the second item explained 27.06% percent of the variance. The first factor was comprised of three items. Those items were: (1) get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce); (2) get information from state/city travel offices; and (3) get information from national government tourist offices (factor loadings of .837, .846 and .828, respectively). The second factor also comprised of four (4) items with factor loadings greater than .40. Those items were: (1) get information from friends and family; get information from travel consultants (e.g., travel agents); (3) get information from TV, radio, newspaper and/or magazine advertisements; and (4) get information from magazine reports (factor loadings of .603, .636, .807 and .763, respectively). Examination of the Cronbach's Alpha reliability score indicated that both factors had acceptable reliability scores. The first factor's reliability score was .81 and the second factor's reliability score was .72.

| <b>Table 4.9</b>  |                 |                 |
|---|-----------------|-----------------|
| <b>Factor Analysis Result from the Pretest of the 8-items Representing the External Information Search Construct (N = 224).</b> |                 |                 |
| <b>Scale items/Factors</b>  | <b>Factor 1</b> | <b>Factor 2</b> |
| Get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce).           | .837            |                 |
| Get information from state/city travel offices.   | .846            |                 |
| Get information from national government tourist offices.   | .828            |                 |
| Get information from friends and family.  |                 | .603            |
| Get information from travel consultants (e.g., travel agents).  |                 | .636            |
| Get information from TV, radio, newspaper and/or magazine advertisements.   |                 | .807            |
| Get information from magazine reports.  |                 | .763            |
| <b>Reliability coefficient (Cronbach's Alpha)</b>   | .81             | .72             |
| <b>Eigenvalue</b>   | 2.788           | 2.164           |
| <b>Variance explained</b>   | 34.85           | 27.06           |
| The Kaiser-Meyer-Olkin measure of sampling adequacy   | .679            |                 |
| The Bartlett's test of sphericity (significance level)  | .000            |                 |

**Note:** \* Reverse coded

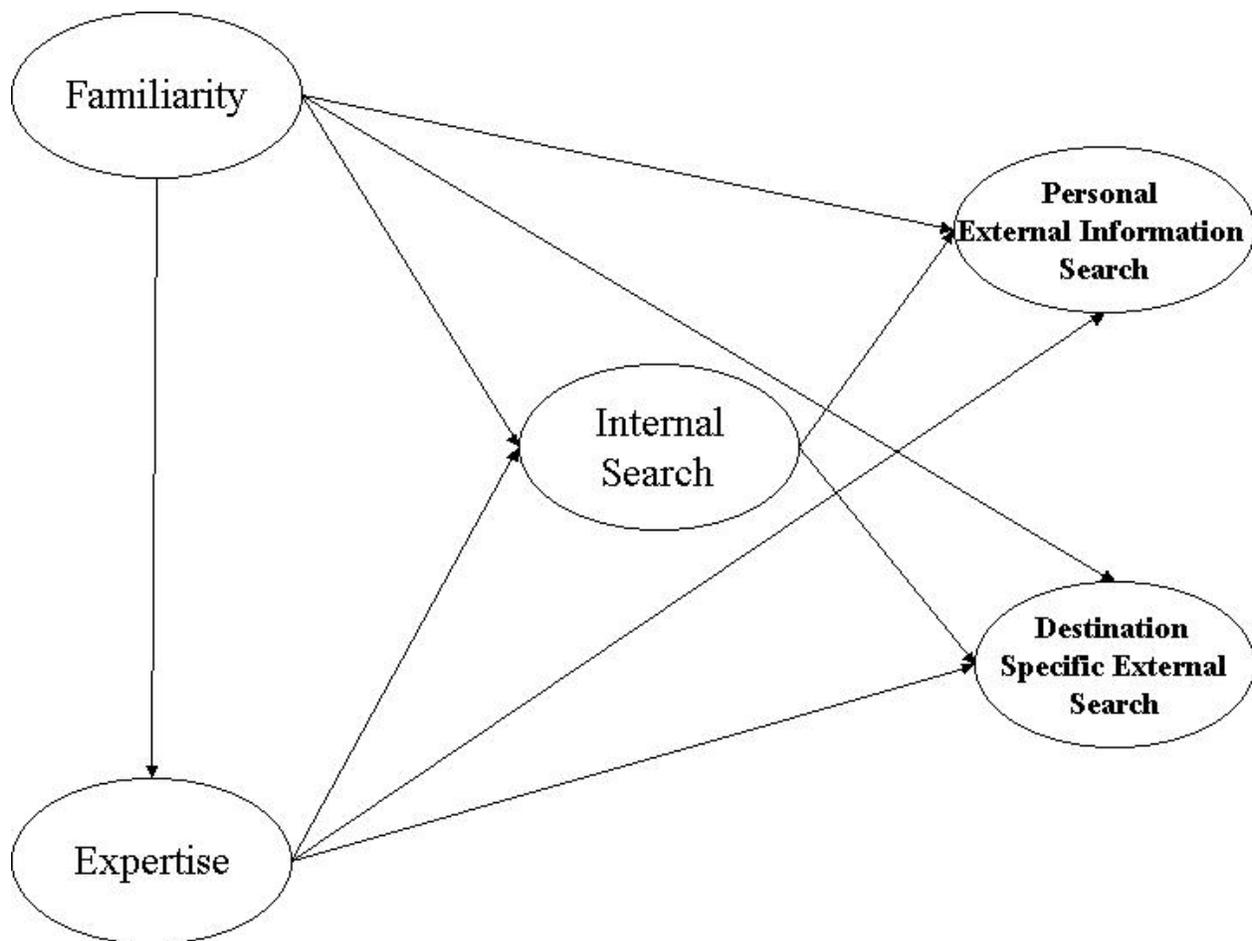
Only factor loadings >.40 are shown

Only those items that loaded on the only factors with eigenvalues greater than 1 are shown.

Results reported here are consistent with previous research findings. Several researchers have reported that travelers are likely to utilize more than external information search strategies (Gursoy and Chen 2000; Fodness and Murray 1997, 1998). Therefore, external information search is examined as having two dimensions. The first dimension was called “destination specific external information search” and the second dimension was called as “external

information search from personal sources.” Due to the two-factor structure of external search, the proposed model (Figure 3.1) was modified. Figure 4.1 presents the proposed theoretical model that was tested.

**Figure 4.1.**  
**Modified Proposed Model**



## **Final Survey**

This section of the chapter will discuss the final survey method, the sample, response rate, and the demographics of the final sample.

### **Survey Method**

A self-administered survey questionnaire was used to collect data. The questionnaire was delivered via the U.S. postal service to a first stratified than randomly selected sample. The mailed package included a cover letter that was addressed to the respondent and signed individually in blue ink in an attempt to show personalization, a self-addressed and a stamped envelope, and the questionnaire (Appendix B). Three weeks after the survey was mailed, a reminder postcard was sent to respondents (Appendix C).

### **Sample**

The sample population consisted of individuals who reside in the State of Virginia. A cover letter and survey questionnaire were mailed to 2,000 residents of Virginia. In order to make sure that sample represented population distribution in Virginia, a stratified sampling approach was utilized. First, the total population of Virginia and population of counties and cities in Virginia were obtained from the U.S. Census Bureau (2000). Afterwards, the number of respondents needed from each county and city to obtain a total sample of 2,000 was calculated. Once the number of respondents was identified, a random sampling method was utilized to select the appropriate number of respondents from each county and city. The sample (mailing list) for this study was downloaded from ReferenceUSA database (<http://www.referenceusa.com/>)

residential information section. Appendix D presents the population of counties and cities and the number of respondents from each county and city.

The overall response rate was 24.15% (483 respondents) (See Table 4.10). Thirteen of the returned questionnaires were eliminated as the data were being coded because they were returned blank or only partially completed. After eliminating the unusable responses, 470 responses were coded and used for data analysis.

| <b>Table 4.10<br/>Response Rate</b>  |        |            |
|--------------------------------------|--------|------------|
|                                      | Number | Percent(%) |
| Total target population              | 2,000  | 100.00%    |
| Less undeliverable                   | 9      | .45%       |
| Total survey population              | 1991   | 99.55%     |
| Total survey population (from above) | 1991   | 100.00%    |
| Total responses                      | 483    | 24.26%     |
| Less unusable                        | 13     | .65%       |
| Total usable responses               | 470    | 23.61      |
| Description of unusable surveys:     |        |            |
| Returned without any completion      | 9      |            |
| Incomplete surveys                   | 4      |            |

A general overview of the respondents follows. For more specific details regarding the age, income, marital status, gender and number of children, please refer to the profile of the respondents shown in Appendix E.

### **Profile of the Respondents**

The demographic characteristics of age, income, marital status, gender, number of children and the age of the youngest children were included in this study in an effort to provide a

descriptive profile of the survey respondents. A discussion of the demographics of the respondents ensues.

### *Age*

The survey respondents were simply asked their age in an open-ended question and provided a blank in which to supply the answer. Most of the people who return complete questionnaires are middle-aged or older with 50.97% between the ages of 35 and 54 and another 31.48% of the respondents are 55 or older. The mean age for the respondents is 48.75.

### *Income*

Respondents were asked their annual household income in an open-ended question and provided a blank space in which to supply the answer. More of the survey population left this question blank than any other question on the survey, with only 352 of the 470 respondents providing information regarding their annual household income. Of those who did answer the question only 1.4% reported annual household income less than \$20,000, whereas 32.10% reported annual household income in excess of \$100,000. Most of the reported annual household income fell between \$40,000 and \$79,999 with 19.32% of the respondents reporting annual household incomes between \$40,000 and \$59,999 and 23.30% indicating that their annual household income was between \$60,000 and \$79,999. Only 10.80% of the survey respondents reported that their annual household income was between \$20,000 and \$39,999 while 13.07% of the respondents indicated that they earned between \$80,000 and \$99,999. The mean household income for the sample population was \$86,524, which indicates that the average income of

individuals who returned the completed surveys was well above the national average household income.

### ***Gender***

Survey respondents were asked to circle if they were male (M) or female (F). Of the 466 individuals who provided gender information, 281 (60.30%) were male, whereas 185 (39.70%) were female.

### ***Marital Status***

Respondents were asked to provide information regarding their marital status by circling one of the following choices: “now married,” “divorced,” “separated,” or “never married.” The vast majority of individuals who completed the questionnaires was married (80.30%), followed by 7.71% who have never been married, 6.20% who are divorced, 4.07% who are widowed, and 1.71% who are currently separated.

### ***Number of Children***

The survey respondents were simply asked to indicate whether they had any children and if they had, they were asked to indicate the number of children they had in an open-ended question and provided a blank in which to supply the answer. The vast majority of individuals who completed the survey indicated that they had at least one child while only 20.64% of 470 respondents indicated that they did not have any children. Most of the respondents indicated that they had two or three children with 37.87% of the respondents reporting that they had two children and 17.66% of the respondents indicating that they had three children. A total of 12.98%

of the respondents reported that they had one child while 8.09% of the respondent reported that they had four and 1.7 reported that they had five children. Only five respondents reported that they had six children.

## **Data Analysis**

This section of the chapter will present the results of the statistical analysis of the data collected. First, the results of the confirmatory analysis of the expertise construct will be presented. After confirming the five dimensions of expertise, a summated scale will be constructed for each dimension and expertise will be examined as one construct by using each summated scale as a measurement item of the expertise construct as discussed in Chapter III. Next, the result of the measurement model including all constructs will be presented. Afterwards, the results of the structural equation modeling will be presented to test the proposed hypotheses.

### **Confirmatory Factor Analysis of Expertise Construct**

Five dimensions of expertise were discussed in detail in Chapter II. Those five dimensions were: automaticity, expertise in utilizing memory, expertise in building cognitive structures, expertise in analysis and expertise in elaboration (Alba and Hutchinson 1987). A measurement scale was proposed to assess each dimension in Chapter III. The preceding section of chapter IV presented the pretest results of the proposed measurement scale for each dimension of expertise and for the other scales that were proposed to measure familiarity, internal search and external search. The next step in the analysis is to perform a confirmatory factor analysis to confirm the measurement scale properties. As stated earlier and in Chapter III, a summated scale

will be used to measure the expertise construct. The indicators of each dimension of expertise will be summated and the resulting five summated scales will be used to measure expertise. Therefore, before testing the measurement model properties of the whole proposed measurement model, a separate confirmatory factor analysis is required to be performed on the five dimensions of expertise. The observed variables that were grouped together in component factor analysis were utilized to perform the confirmatory factor analysis.

The confirmatory factor analysis was performed by specifying the posited relationships of the observed variables to the underlying five dimensions of expertise, with the dimensions allowed to intercorrelate freely. The covariance matrix was used as the input data for the confirmatory factor analysis procedure available in LISREL 8 (Joreskog and Sorbom 1989). The confirmatory measurement model to be tested postulates a priori that “expertise ” is a five-factor structure composed of (1) automaticity, (2) expertise in utilizing memory, (3) expertise in building cognitive structures, (4) expertise in analysis and (5) expertise in elaboration. Further dissection of the model indicates that these five factors are correlated and there are 22 observed variables. As shown in Table 4.11, four observed variables load onto automaticity, expertise in utilizing memory and elaboration dimensions, and five observed variables load onto the building cognitive structures and analysis dimensions. In addition, errors of measurement associated with each observed variable are uncorrelated.

**Table 4.11**  
**Loading Patterns of Observed Variables onto each Construct**

**Automaticity**

1. If I like a vacation destination, I rarely switch from it just to go somewhere different.\*
2. I am likely to choose a different vacation destination whenever I travel.
3. I prefer to stay at the same hotel brand (e.g. Holiday Inn, Marriott, etc.) whenever I travel.\*
4. I tend to go back to destinations I have visited before because of social contacts with either residents or other visitors.\*

**Expertise in utilizing memory**

1. I can easily recall activities offered in the destination I named at the beginning of the survey.
2. I still remember what I did during my vacation at the destination I named at the beginning of the survey.
3. When I close my eyes, I can easily picture the destination I named at the beginning of the survey.
4. I have often told others about my experience(s) at this destination.

**Expertise in Building Cognitive Structures**

1. I can easily differentiate vacation destinations based on the attractions offered.
2. If I am given a list of vacation destinations, I can easily group those vacation destinations that offer similar attractions.
3. I can easily list several destinations that are similar to the destination I named at the beginning of the survey.
4. When I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any other attractions) I can easily list several of them.

**Table 4.11**  
**Loading Patterns of Observed Variables onto each Construct**

5. I do not know any vacation destination that is similar to the destination I named at the beginning of the survey.\*

**Analysis**

1. When I make vacation decisions I am likely to evaluate destination specific facts (e.g. number of attractions, dining facilities, etc.).
2. I do not think that I need to analyze all the available information about a destination to make my vacation decision.\*
3. I do not think that all of the available information is useful in choosing a vacation destination.\*
4. I am usually tempted to put more thought into a vacation destination selection decision than it requires.
5. More often than not, more thinking about vacation decision just leads to more errors.\*

**Elaboration**

1. Before choosing a vacation destination, I am likely to consider all the facts I know about the destination.
2. If my friends and relatives are having a hard time making their vacation decisions they are likely to come to me for help.
3. I am more likely to spend time thinking about a possible vacation destination information than other people.
4. I like making vacation decisions that require a lot of thinking.

\* Reverse coded

Before testing the overall confirmatory measurement model, the measurement unidimensionality of each construct was assessed individually (Sethi and King 1994). Unidimensionality refers to the fact that each set of alternate observed indicators (individual scale items) has only one underlying trait or construct in common (Hattie 1985). A separate

confirmatory factor analysis was performed for each construct with four or more observed variables. If a construct had three observed variables, it was combined with another construct and a confirmatory factor analysis was performed for both constructs. If the model fit was unacceptable, the modification indices and residuals were examined. Based on the suggestions of the modification indices and the size of the residuals, constructs with unacceptable fits were respecified to increase the model fit by deleting the indicators that had large residuals and/or wanted to load on other constructs. This was done to preserve the potential to have a uni-dimensional measurement (Anderson and Gerbing 1988). Assessing each construct individually and deleting indicators that had large residuals and/or wanted to load on other constructs resulted in a decrease in the number of indicators in four constructs. The number of indicators (that were identified by the original component factor analysis) used to measure expertise in utilizing memory and expertise in elaboration constructs decreased to three observed variables from four. The number of observed variables used to measure expertise in building cognitive structures decreased to four from five and the number of observed variables used to measure expertise in analysis decreased to three from five indicators. The constructs that ended up with three observed indicators were retested to make sure that they had measurement uni-dimensionality. Each construct with three observed indicators was combined with another construct and a confirmatory factor analysis was performed. Results indicated that all constructs with three observed indicators had measurement uni-dimensionality.

After assessing the uni-dimensionality of each sub-construct individually (Sethi and King 1994), a measurement model for each pair of constructs was estimated, combining them two by two (Joreskog 1993). Afterwards, the overall measurement model fit was tested by a

confirmatory factor analysis (Anderson and Gerbing 1988; Joreskog 1993; Sethi and King 1994).

The items that remained are presented in Table 4.12.

**Table 4.12**  
**Measurement Scale Properties for Expertise**  
**(N = 470)**

| <b>Constructs and Indicators</b>   | <b>Completely Standardized Loadings</b> | <b>Construct/ Indicator Reliability</b> | <b>Error Variance</b> |
|--|---|---|-----------------------|
| <b>Automaticity</b>  |   | <b>.66**</b>                            | <b>.37***</b>         |
| 1. If I like a vacation destination, I rarely switch from it just to go somewhere different.*                                    | .76                                     | .58                                     | .42                   |
| 2. I am likely to choose a different vacation destination whenever I travel.   | .71                                     | .50                                     | .50                   |
| 3. I prefer to stay at the same hotel brand (e.g. Holiday Inn, Marriott, etc.) whenever I travel.*                               | .38                                     | .14                                     | .86                   |
| 4. I tend to go back to destinations I have visited before because of social contacts with either residents or other visitors.*  | .41                                     | .17                                     | .83                   |
| <b>Expertise in utilizing memory</b>   |   | <b>.91**</b>                            | <b>.09***</b>         |
| 1. I can easily recall activities offered in the destination I named at the beginning of the survey.                             | .71                                     | .50                                     | .50                   |
| 2. I still remember what I did during my vacation at the destination I named at the beginning of the survey.                     | .95                                     | .90                                     | .10                   |
| 3. When I close my eyes, I can easily picture the destination I named at the beginning of the survey.                            | .96                                     | .93                                     | .07                   |
| <b>Expertise in Building Cognitive Structures</b>  |   | <b>.90**</b>                            | <b>.10***</b>         |
| 1. I can easily differentiate vacation destinations based on the attractions offered.  | .86                                     | .73                                     | .27                   |
| 2. If I am given a list of vacation destinations, I can easily group those vacation destinations that offer similar attractions. | .88                                     | .77                                     | .23                   |

**Table 4.12**  
**Measurement Scale Properties for Expertise**  
**(N = 470)**

|   |     |              |               |
|---|-----|--------------|---------------|
| 3. I can easily list several destinations that are similar to the destination I named at the beginning of the survey.   | .77 | .60          | .40           |
| 4. When I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any other attractions) I can easily list several of them. | .80 | .64          | .36           |
| <b>Analysis</b>   |     | <b>.84**</b> | <b>.16***</b> |
| 1. I do not think that I need to analyze all the available information about a destination to make my vacation decision.*   | .85 | .73          | .27           |
| 2. I do not think that all of the available information is useful in choosing a vacation destination.*  | .79 | .62          | .38           |
| 3. I am usually tempted to put more thought into a vacation destination selection decision than it requires.  | .76 | .57          | .43           |
| <b>Elaboration</b>  |     | <b>.71**</b> | <b>.29***</b> |
| 1. If my friends and relatives are having a hard time making their vacation decisions they are likely to come to me for help.   | .61 | .37          | .63           |
| 2. I am more likely to spend time thinking about a possible vacation destination information than other people.   | .67 | .45          | .55           |
| 3. I like making vacation decisions that require a lot of thinking.   | .72 | .52          | .48           |

Notes: \* Reverse coded

\*\* Indicates the composite reliability of each construct

\*\*\* Indicates the composite error variance of each construct

Table 4.12 presents the completely standardized coefficients (i.e., both the latent and observed variables are standardized), the indicator reliabilities (i.e., the squared multiple

correlations for X-variables) and the error variances for each indicator. The composite indicator reliabilities were calculated using the formula recommended by Fornell and Larcker (1981).

As presented in Table 4.12, all of the composite reliabilities were above .7 with the exception of automaticity. Even though the composite reliability score of automaticity was below .70 (.66), it was determined to be close enough to consider because reliability scores that are between .60 and .70 represent the lower limit of acceptability (Hair, Anderson, Tatham and Black 1998). The overall fit of this final measurement model was  $\chi^2_{(109)}=299.52$  ( $p = 0.0$ ); GFI = .95; AGFI = .90; NFI = .93; NNFI = .94; CFI = .96, and PGFI = 0.76; PNFI = .78 and critical  $N = 502.69$ . Further, the indicators of residuals, RMR (root mean square), standardized RMR and RMSEA (root mean square error of approximation) were .046, .043 and .047, respectively.

### **Testing the Proposed Model**

Over the last two decades, the use of structural equation modeling has become increasingly popular in social and behavioral sciences. One reason for this is that these confirmatory methods provide researchers with a comprehensive means for assessing and modifying theoretical models (Anderson and Gerbing 1988). Since most theories in social and behavioral sciences are formulated in terms of hypothetical constructs, which are theoretical creations that cannot be observed or measured directly, researchers need to define the hypothetical constructs by specifying the dimensions of each construct. Therefore, the measurement of the hypothetical construct is done indirectly through one or more observable indicators, such as responses to questionnaire items that are assumed to represent the construct adequately. Once the theoretical constructs are defined by observable indicators, the theory

further defines how the constructs are interrelated by hypotheses. This includes the classification of the constructs into dependent (endogenous) and independent (exogenous) constructs. The relationship between observable indicators and the theoretical constructs constitutes the measurement part of the model, and the theoretical relationships between the constructs constitute the structural part of the model (Joreskog 1993).

SEM is used to evaluate a substantive theory with empirical data through a hypothesized model. The structural equation model represents a series of hypotheses about how the variables (constructs) are related. The parameters of the model are the regression coefficients and variances and covariances of variables. The commonly used approaches to estimating the parameters of structural equation models are maximum likelihood (ML) and normal theory generalized least squares (GLS). Both estimation techniques assume that the measured variables are continuous and have a multivariate normal distribution. However, maximum likelihood estimation has been the most commonly used approach in structural equation modeling because ML estimations have been found to overcome the problems created by the violations of normality, which means that estimates are good estimates, even when the data are not normally distributed. On the other hand, the GLS method has not been intensively studied (Hoyle 1995). Joreskog (1972) and Browne (1984) found that the GLS estimates are likely to be negatively biased compared to ML estimates. Therefore, the properties of the items of the five constructs (one exogenous and four endogenous) in the proposed model and the hypotheses were tested using the LISREL 8 structural equation analysis package (Joreskog and Sorbom 1993) with maximum likelihood (ML) method of estimation (for recommendations for ML see Anderson

and Gerbing 1988; Bentler 1983), in combination with the two-stage process recommended by Sethi and King (1994) and Anderson and Gerbing (1988).

### **Measurement Model**

First a confirmatory measurement model that specifies the posited relations of the observed variables to the underlying constructs (i.e. unobserved latent variables), with the constructs allowed to intercorrelate freely was tested as recommended by Sethi and King (1994), Anderson and Gerbing (1988) and Joreskog (1993). The measurement model specifies the pattern by which each measure loads on a particular factor. Confirmatory factor analysis of a measuring instrument is most appropriately applied to measures that have been fully developed and their factor structure validated. In testing for the validity of factorial structure for an assessment measure, the researcher seeks to determine the extent to which items designed to measure a particular factor (i.e., latent construct) actually do so. In general, subscales of a measuring instrument are considered to represent the factors; all items comprising a particular subscale are therefore expected to load onto its related factor (Byrne 1998).

Maximum likelihood confirmatory factor analysis requires complete data for every subject to preserve the integrity of the data set. Therefore, cases with missing values are deleted list-wise rather than pair-wise. All cases with missing values were eliminated from the analysis. This resulted in a lower sample size (447). Another requirement is that confirmatory factor analysis should be based on a large sample size. A confirmatory factor analysis conducted with a small sample size may result in unreliable, inflated, spurious results. Monte Carlo studies suggest that for relatively simple models ( i.e., one, two, or three factors), a minimum of 100 subjects is

required (Bearden, Sharma and Teel 1982). For more complex models, substantially larger sample sizes are needed. Even though all cases with missing values were eliminated, the resulting sample size was found to be large enough to satisfy the sample size requirements of confirmatory factor analysis. Another criterion requires that the correlation (or covariance) matrix include multiple measures of each underlying construct. In a single-factor model, at least three (but ideally more) observed measures (indicators) of the factor are required. In more complex (multiple-factor) models, two measures per factor may be sufficient, however, at least three measures per factor is ideal (Bryne 1998; Hoyle 1995). All of the factors included in this study have at least three observed measures (indicators).

In building measurement models, it is important to measure each construct with multiple observed indicators because multiple-indicator measurement models allow the most unambiguous assignment of meaning to the estimated constructs. In multiple-indicator measurement models, each indicator should measure (load on) only one construct because achieving uni-dimensional measurement is a crucial undertaking in theory development and testing (Anderson and Gerbing 1988). That is why, it is important to make sure that the measures (observed indicators) that are posited as alternate indicators of each construct must be acceptably uni-dimensional (Anderson and Gerbing 1988). Therefore, before testing the overall measurement model, measurement uni-dimensionality of each was assessed individually (Sethi and King, 1994). Uni-dimensionality of constructs that are measured by at least four observed indicators were tested individually. Uni-dimensionality of constructs that are measured by less than four observed indicators were tested by pairing the construct with another construct that also has less than four observed indicators. Constructs with unacceptable fits were respecified by

deleting the indicators that have not worked out as planned to preserve the potential to have uni-dimensional measurement (Anderson and Gerbing 1988).

First, the uni-dimensionality of exogenous latent variables was tested. The term exogenous latent variable is synonymous with independent variables; they “cause” fluctuations in the values of other latent variables in the model. Changes in the values of exogenous variables are not explained by the model. Rather, they are considered to be influenced by other factors external to the model (Byrne 1998). Second, the uni-dimensionality of endogenous latent variables was tested. Endogenous latent variables are synonymous with dependent variables and they are influenced by the exogenous variables in the model, either directly, or indirectly. Fluctuation in the values of endogenous variables is said to be explained by the model because all latent variables that influence them are included in the model specification (Byrne 1998).

Assessing each construct’s uni-dimensionality individually and deleting indicators that have not worked out as planned resulted in a decrease in the number of indicators in one construct. The number of indicators used to measure the “familiarity” construct decreased to three indicators from four indicators after eliminating “I try to improve my knowledge about vacation destinations.”

After making sure that each construct was uni-dimensional, (Sethi and King 1994), overall measurement model fit was tested (Anderson and Gerbing 1988; Joreskog 1993; Sethi and King 1994). The covariance matrix was used as the input data for the examination of the measurement model available in LISREL 8 (Joreskog and Sorbom 1988). The proposed

measurement model to be tested postulates a priori that the measurement model is a five-factor structure composed of (1) familiarity, (2) expertise, (3) internal search, (4) external information search from personal sources and (5) destination specific external information search. Further dissection of the model indicates that these five factors are correlated and there are 18 observed variables. As shown in Table 4.13, three observed variables load onto familiarity, five onto expertise, three onto internal search, three destination specific external information search, and four onto external information search from personal sources. The final measurement model was different from the originally proposed measurement model. In the original measurement model, external search was proposed to have one dimension with eight observed variables. However, the pretest indicated that external search has two dimensions: external search from private sources and external search from destination specific search. The external search from private sources dimension is measured by three indicators and the external search from destination specific sources dimension is measured by four indicators. In addition, the number of indicators that were proposed to measure the familiarity construct decreased to three from four and the observed indicators of the internal search construct decreased to three from five in the final measurement model.

Next, the fit of the measurement model was tested using the LISREL 8 structural equation package with the maximum likelihood (ML) method of estimation. The primary interest in this section is to test whether the measurement model has acceptable fit (how well the model describes the sample data) or not. Before evaluating the model as a whole, it is necessary to evaluate the individual parameter estimates.

First, it is necessary to determine the viability of the individual parameters' estimated values. Parameter estimates should exhibit the correct sign and size and be consistent with the underlying theory. A second criterion relates to the statistical significance of parameter estimates. The test statistic used is the *t*-statistic, which represents the parameter estimate divided by its standard error. The *t*-statistic tests whether the estimate is statistically significant from zero. A *t*-test statistic that is larger than  $\pm 1.96$  indicates that the parameter estimate is significant at .05 probability level.

Table 4.13 presents the unstandardized parameter estimates for the proposed five-factor measurement model produced by LISREL. There are three lines of information for each observed indicator. The first line represents the estimate, the parenthesized value on the second line represents the standard error, and the third line represents the *t*-value. An examination of the unstandardized parameter estimates in Table 4.13 reveals all estimates to be both reasonable and statistically significant.

**Table 4.13**  
**Parameter Estimates for the Proposed Five-factor Measurement Model**  
**LISREL ESTIMATES (MAXIMUM LIKELIHOOD)**  
**(N = 447)**

| LAMDA X |          | Familiarity | Expertise | Internal Search | External Information Search from Personal Sources | Destination Specific External Information Search |
|---------|----------|-------------|-----------|-----------------|---|--|
| X1      | Estimate | 0.92        |           |                 |   |  |
|         | SD       | (0.04)      |           |                 |   |  |
|         | t-value  | 21.93       |           |                 |   |  |
| X2      | Estimate | 0.82        |           |                 |   |  |
|         | SD       | (0.04)      |           |                 |   |  |
|         | t-value  | 20.58       |           |                 |   |  |
| X3      | Estimate | 0.81        |           |                 |   |  |
|         | SD       | (0.04)      |           |                 |   |  |
|         | t-value  | 19.03       |           |                 |   |  |
| X5      | Estimate |             | 0.43      |                 |   |  |
|         | SD       |             | (0.04)    |                 |   |  |
|         | t-value  |             | 11.67     |                 |   |  |
| X6      | Estimate |             | 0.35      |                 |   |  |
|         | SD       |             | (0.03)    |                 |   |  |
|         | t-value  |             | 10.93     |                 |   |  |
| X7      | Estimate |             | 0.43      |                 |   |  |
|         | SD       |             | (0.04)    |                 |   |  |
|         | t-value  |             | 12.01     |                 |   |  |
| X8      | Estimate |             | 0.36      |                 |   |  |
|         | SD       |             | (0.04)    |                 |   |  |
|         | t-value  |             | 9.50      |                 |   |  |
| X9      | Estimate |             | 0.43      |                 |   |  |
|         | SD       |             | (0.04)    |                 |   |  |
|         | t-value  |             | 14.32     |                 |   |  |
| X10     | Estimate |             |           | 0.47            |   |  |
|         | SD       |             |           | (0.05)          |   |  |
|         | t-value  |             |           | 9.70            |   |  |
| X11     | Estimate |             |           | 0.56            |   |  |
|         | SD       |             |           | (0.04)          |   |  |
|         | t-value  |             |           | 11.52           |   |  |
| X12     | Estimate |             |           | 0.63            |   |  |
|         | SD       |             |           | (0.04)          |   |  |
|         | t-value  |             |           | 14.67           |   |  |

**Table 4.13**  
**Parameter Estimates for the Proposed Five-factor Measurement Model**  
**LISREL ESTIMATES (MAXIMUM LIKELIHOOD)**  
**(N = 447)**

| LAMDA X |          | Familiarity | Expertise | Internal Search | External Information Search from Personal Sources | Destination Specific External Information Search |
|---------|----------|-------------|-----------|-----------------|---|--|
| X13     | Estimate |             |           |                 | 0.53  |  |
|         | SD       |             |           |                 | (0.05)  |  |
|         | t-value  |             |           |                 | 12.93   |  |
| X14     | Estimate |             |           |                 | 0.65  |  |
|         | SD       |             |           |                 | (0.06)  |  |
|         | t-value  |             |           |                 | 14.38   |  |
| X15     | Estimate |             |           |                 | 0.73  |  |
|         | SD       |             |           |                 | (0.05)  |  |
|         | t-value  |             |           |                 | 15.24   |  |
| X16     | Estimate |             |           |                 | 0.70  |  |
|         | SD       |             |           |                 | (0.04)  |  |
|         | t-value  |             |           |                 | 15.81   |  |
| X17     | Estimate |             |           |                 |   | 0.68   |
|         | SD       |             |           |                 |   | (0.05)   |
|         | t-value  |             |           |                 |   | 13.56  |
| X18     | Estimate |             |           |                 |   | 0.91   |
|         | SD       |             |           |                 |   | (0.05)   |
|         | t-value  |             |           |                 |   | 18.35  |
| X19     | Estimate |             |           |                 |   | 0.73   |
|         | SD       |             |           |                 |   | (0.05)   |
|         | t-value  |             |           |                 |   | 15.01  |

Note: X1 Compared to average person, I am very familiar with a wide variety of vacation destinations; X2 Compared to my friends, I am very familiar with a wide variety of vacation destinations; X3 = Compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations; X5 = Automaticity; X6 = Expertise in utilizing memory; X7 = Expertise in building cognitive structures; X8 = Expertise in analysis; X9 = Expertise in elaboration; X10 = I make my travel decisions based on what I already know; X11 = I make my travel decisions without gathering any information from any information sources; X12 = Before I start planning my vacation, I am likely to search for information; X13 = Get information from friends and family; X14 = Get information from travel consultants (e.g., travel agents); X15 = Get information from TV, radio, newspaper and/or magazine advertisements; X16 = Get information from magazine reports; X17 = Get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce); X18 = Get information from state/city travel offices; X19 = Get information from national government tourist offices.

The next step in assessing model fit is to examine the extent to which the measurement model is adequately represented by the observed variables. The squared multiple correlation ( $r^2$ ) values generated by the LISREL 8 are used to determine whether the measurement model is adequately represented by the observed variables. The squared multiple correlation ( $r^2$ ) values also represents the indicator reliability. The values of the squared multiple correlations ( $r^2$ ) can range from 0.00 to 1.00, and serve as reliability indicators (Bollen 1989; Byrne 1998). Examination of the  $r^2$  values (indicator reliabilities) reported in Table 4.14 reveal that measures are moderately strong. The table also indicates that the strongest indicators are the three measures of the “familiarity” construct.

After measuring the adequacy of the individual items, the composite reliability score for each latent factor was assessed. The composite reliability is analogous to coefficient alpha. The composite reliability score for each latent variable (construct) was generated from completely standardized LISREL estimates (structure coefficients) and calculated by the formula provided by Fornell and Larcker (1981).

$$\text{Composite construct reliability} = \frac{(\text{Sum of standardized loadings})^2}{(\text{Sum of standardized loadings})^2 + (\text{Sum of indicator measurement error})}$$

As seen in Table 4.14, all of the composite reliabilities were above .7 with the exception of “expertise” construct. The composite reliability score of the expertise construct was below .66. As mentioned earlier reliability scores that are between .60 and .70 represent the lower limit of acceptability (Hair, Anderson, Tatham and Black 1998). Therefore, it was accepted as a reliable measurement scale.

**Table 4.14**  
**Measurement Scale Properties**  
**(N = 447)**

| <b>Constructs and Indicators</b>   | <b>Completely Standardized Loadings</b> | <b>Construct/ Indicator Reliability</b> | <b>Error Variance</b> |
|--|---|---|-----------------------|
| <b>Familiarity</b>   |   | <b>.87**</b>                            | <b>.13***</b>         |
| Compared to average person, I am very familiar with a wide variety of vacation destinations          | 86                                      | 0.75                                    | .25                   |
| Compared to my friends, I am very familiar with a wide variety of vacation destinations              | .83                                     | 0.68                                    | .32                   |
| Compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations | .78                                     | 0.61                                    | .39                   |
| <b>Expertise</b>   |   | <b>.66**</b>                            | <b>.36***</b>         |
| Automaticity   | .53                                     | 0.28                                    | .72                   |
| Expertise in utilizing memory  | .38                                     | 0.14                                    | .86                   |
| Expertise in building cognitive structures   | .56                                     | 0.31                                    | .69                   |
| Expertise in analysis  | .43                                     | 0.19                                    | .72                   |
| Expertise in elaboration   | .72                                     | 0.52                                    | .48                   |
| <b>Internal search</b>   |   | <b>.72**</b>                            | <b>.28***</b>         |
| I make my travel decisions based on what I already know.   | .50                                     | 0.25                                    | .75                   |
| I make my travel decisions without gathering any information from any information sources.           | .70                                     | 0.49                                    | .51                   |
| Before I start planning my vacation, I am likely to search for information.*                         | .82                                     | 0.67                                    | .33                   |

**Table 4.14**  
**Measurement Scale Properties**  
**(N = 447)**

| <b>Constructs and Indicators</b>  | <b>Completely Standardized Loadings</b> | <b>Construct/Indicator Reliability</b> | <b>Error Variance</b> |
|---|---|--|-----------------------|
| <b>Destination Specific External Information Search</b>   |   | <b>.77**</b>                           | <b>.23***</b>         |
| Get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce). | .63                                     | 0.40                                   | .60                   |
| Get information from state/city travel offices.   | .85                                     | 0.72                                   | .28                   |
| Get information from national government tourist offices.   | .70                                     | 0.49                                   | .51                   |
| <b>External Information Search from Personal Sources</b>  |   | <b>.77**</b>                           | <b>.23***</b>         |
| Get information from friends and family.  | .57                                     | 0.32                                   | .68                   |
| Get information from travel consultants (e.g., travel agents).  | .58                                     | 0.34                                   | .66                   |
| Get information from TV, radio, newspaper and/or magazine advertisements.   | .75                                     | 0.56                                   | .44                   |
| Get information from magazine reports.  | .77                                     | 0.60                                   | .40                   |

Notes: \* Reverse coded

\*\* Indicates the composite reliability of each construct

\*\*\* Indicates the composite error variance of each construct

Next, the overall measurement model fit was assessed. A model is said to *fit* the observed data to the extent that the covariance matrix it implies is equivalent to the observed covariance matrix (i.e., elements of the residual matrix are near zero) (Hoyle 1995). The most common index of fit is the  $\chi^2$  (Chi-square) goodness-of-fit test, which is derived directly from the value of

the fitting function. Therefore, first the  $\chi^2$  (Chi-square) goodness-of-fit test (and associated  $P$  values) was examined. However, there are several problems associated with using the  $\chi^2$  (Chi-square) goodness-of-fit test (and associated  $P$  values) as the only indicator of the model fit. As noted by Joreskog (1993, p. 309) “since chi-square is  $N-1$  times the minimum value of the fit function, chi-square tends to be large in large samples...”. In a  $\chi^2$  test only the central  $\chi^2$  distribution is used to test the hypothesis that the discrepancy between the sample covariance matrix and the implied covariance matrix is statistically equal to zero. However, even if the discrepancy between the estimated model and data is very small, if the sample size is large enough, almost any model will be rejected because the discrepancy is not statistically equal to zero due to the excess power of the large sample size. In other words, the researcher is not likely to know everything there is to know about the data. In addition, a  $\chi^2$  test offers only a dichotomous decision strategy implied by a statistical decision rule and cannot be used to quantify the degree of fit along a continuum with some prespecified boundary. In this case the sample size was 447 and the chi-square value for the saturated model was 348.20 ( $P = 0.0$ ). The Critical N (CN) indicates that if the sample size was 207, the  $\chi^2$  (Chi-square) goodness-of-fit test (and associated  $P$  values) would result in lower  $\chi^2$  value and it would be insignificant indicating that an acceptable fit.

## **Fit Indices**

Because of the problems associated with the chi-square (and associated  $P$  values), two different types of fit indices were also selected to measure the fit of the tested models based on the recommendations of several researchers from a number of different disciplines. These selected fit indices are absolute and incremental fit indices. In addition, the residuals are evaluated.

### ***Absolute Fit Indices***

An absolute fit index directly assesses how well a priori model reproduces the sample data. It compares the hypothesized model with no model at all. However, an implicit or explicit comparison may be made to a saturated model that reproduces the exact observed covariance matrix. As a result, this type of fit index is analogous to  $R$  by comparing the goodness of fit to a component that is similar to a sum of squares (Hu and Bentler 1995). Three absolute goodness of fit indices are reported in this study. These are the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit index (AGFI), and the Parsimony Goodness-of-Fit Index (PGFI).

The Goodness-of-Fit Index (GFI) is a measure of the relative amount of variance and covariance in sample data that is jointly explained by sample data (Joreskog and Sorbom 1989). The problem with GFI is that it does not take into account the number of degrees of freedom in the specified model. That's why the GFI tends to favor more complex models (i.e., those with more parameters to be estimated). On the other hand, the Adjusted Goodness-of-Fit index (AGFI) adjusts for the number of degrees of freedom in the specified model. AGFI also addresses the issue of parsimony by incorporating a penalty for the inclusion of additional

parameters. Both indices range from zero to 1.00 with a value close to 1.00 indicating good fit (e.g., Byrne 1989; Mulaik et al. 1989). Based on the GFI and AGFI values reported in Table 4.15 (.0.93 and 0.90, respectively), it is concluded that the proposed measurement model fits the sample data fairly well.

| Fit Index                              | Value  |
|--|--------|
| Chi-Square with 122 degrees of freedom | 348.20 |
| Goodness-of-Fit Index (GFI)            | 0.93   |
| Adjusted Goodness-of-Fit index (AGFI)  | 0.90   |
| Parsimony Goodness-of-Fit Index (PGFI) | 0.71   |
| Normed of Fit Index (NFI)              | 0.91   |
| Non-Normed Fit Index (NNFI)            | 0.90   |
| Parsimony Normed Fit Index (PNFI)      | 0.73   |
| Comparative Fit Index (CFI)            | 0.91   |
| Incremental Fit Index (IFI)            | 0.90   |
| Critical N (CN)                        | 207.54 |
| Root Mean Square Residual (RMR)        | 0.046  |
| Standardized RMR                       | 0.043  |

The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM. It takes into account the complexity (i.e., number of estimated parameters) of the proposed model in the assessment of overall model fit. The threshold level (value) of parsimony-based indices is lower than the threshold level of normed indices of fit (Mulaik et al. 1989). Mulaik et al. (1989) suggest that goodness-of-fit indices in the range of .90 accompanied by parsimonious-fit indices in the range of .50, are not unexpected. In the light of Mulaik et al.'s suggestion, the PGFI value of the hypothesized measurement model (0.71) presented in Table 4.15 seems to be consistent with the previous fit statistics.

### ***Incremental Fit Indices***

An incremental fit index compares the target model with a baseline model in order to measure the proportionate improvement in fit. The baseline model is usually a more restricted model than the hypothesized model. Typically, the independence or null model is used as the baseline model because in the independence or null model all the observed variables are uncorrelated and that makes it the most restricted model. Five incremental goodness-of-fit indices are reported in this study. These are the Normed of Fit Index (NFI), the Non-Normed Fit Index (NNFI), the Parsimony Normed Fit Index (PNFI), the Comparative Fit Index (CFI) and the Incremental Fit Index (IFI).

The Normed Fit Index (NFI) is an index of the fit between a saturated model and a null model (i.e., a restricted model against which other less restricted models are compared in a nested sequence of models) (Bentler and Bonett 1980). The problem with NFI is that it does not take into account the sample size. NFI is not a good indicator for evaluating model fit when sample size is small because studies show that NFI has a tendency to underestimate fit in small samples (Bryne 1998; Hu and Bentler 1995). However, the NFI has been reported in almost every study. Since small sample size was not an issue in this study, it was decided to report the NFI. Values of NFI range from zero to 1.00 with a value  $>.90$  indicating an acceptable fit to the data (Bentler 1992). As shown in Table 4.15 the NFI (0.91) was consistent with the previously reported goodness-of-fit indices in suggesting that the proposed measurement model represented an adequate fit to the data.

The Non-Normed Fit Index (NNFI) takes the complexity of the model into account in the comparison of the hypothesized model with the independence model. Since the NNFI is not normed, its value can extend beyond the range of zero to 1.00. However, the NNFI has been found to be unaffected by sample size (Bentler 1990; Hu and Bentler 1995; Marsh, Balia and McDonald 1988). A value  $>.90$  indicates an acceptable fit to the data (Bentler 1992). As shown in Table 4.15, the NNFI (0.90) was consistent with the previously reported goodness-of-fit indices in suggesting that the proposed measurement model represented an adequate fit to the data.

The Parsimony Normed Fit Index (PNFI) addresses the issue of parsimony by taking the complexity of the model into account in its assessment of goodness-of-fit. ). The PNFI adjusts for the number of free parameters in the model and controls for the fact that better fit can be indicated by the other indices simply by freeing more parameters in the model (Mulaik et al., 1989). It is tied to the NFI. The PNFI is calculated by multiplying the NFI with the parsimony ratio (Byrne 1989; Mulaik et al. 1989). Like PGFI, the PNFI usually has lower values than the threshold level generally perceived as acceptable for other normed indices of fit. Therefore, the PNFI (0.73) indicates a good fit of the proposed measurement model to the data.

The Comparative Fit Index (CFI) is the revised version of the NFI. Unlike the NFI, it takes the sample into account in the comparison of the hypothesized model with the independence model (Bentler 1990). In addition, unlike GFI, the CFI does not penalize for the parsimoniousness of a model. Given the differences in parsimony of the a priori (theoretical) model and re-specified models, the CFI can ensure that conclusions were not biased in favor of

more saturated models. Values of CFI range from zero to 1.00 with a value  $>.90$  indicating an acceptable fit to the data (Bentler 1992). As shown in Table 4.15 the CFI (0.91) was consistent with the previously reported goodness-of-fit indices in suggesting that the proposed measurement model represented an adequate fit to the data.

The Incremental Fit Index (IFI) addresses the issue of parsimony and sample size that are known to be associated with NFI. Like all the other normed fit indices, values of IFI range from zero to 1.00 with a value  $>.90$  indicating an acceptable fit to the data. As shown in Table 4.15 the IFI (0.90) was consistent with the previously reported goodness-of-fit indices in suggesting that the proposed measurement model represented an adequate fit to the data.

The last goodness-of-fit statistic reported in the study is the Hoelter's (1983) Critical N (CN). CN addresses the issue of sample size rather than the model fit. The CN statistic estimates the sample size that would make the obtained chi-square statistically significant (Joreskog and Sorbom 1996). A cut off of 200 or greater is suggested as an indication of adequate model fit for the critical  $N$  statistic (Bollen 1989; Hoelter 1983). As shown in Table 4.15, the CN value for proposed measurement model was 207.54, which leads to the conclusion that the sample size of this study ( $N = 447$ ) was sufficiently large as to allow for an adequate fit to the model.

### ***Evaluation of Residuals***

The Root Mean Square Residual (RMR) is a measure of the average of the fitted residuals and can only be interpreted in relation to the sizes of the observed variances and covariances in sample data (Joreskog and Sorbom 1996). It represents the average residual value

derived from the fitting of the variance-covariance matrix for the proposed model to the variance-covariance matrix of the sample data (Byrne 1998). This measure works best if all the observed variables are standardized. It is also a good idea to report the standardized RMR if the data is not standardized. The standardized RMR represents the average value across all standardized residuals, and ranges from zero to 1.00. In a well fitting model the value of the standardized RMR (and RMR) should be .05 or less (Byrne 1998). The values of the RMR and the standardized RMR (0.046 and 0.043, respectively) shown in Table 4.15 represents the average discrepancy between the sample observed and proposed variance-covariance matrices and indicates a well fitting model.

### **Discriminant Validity**

Discriminant validity addresses the concept that the measures (observed indicators) of dissimilar constructs that theoretically should not be related to each other, in fact, are observed to not be related to each other (Zikmund 1997). This means that observed indicators that measure one construct should not be related to the measures of other constructs in the proposed measurement model if the constructs in the proposed measurement model have discriminant validity. To ensure that the constructs are not measuring the same concept or ideas, the discriminant validity was assessed for each construct in the measurement model by examining the constructs in sets of two (Joreskog, 1993). For example, the “familiarity” construct was tested against the “expertise” construct to establish these two constructs have discriminant validity (not measuring the same concept). Then, the “familiarity” construct was tested against “internal search” construct, and so forth until every possible pair of constructs was tested.

In order to test the discriminant validity of each construct, two models were tested for every possible pair of estimated constructs. The, first model was the constrained model where the correlation parameter was constrained between each pair of constructs to 1.00. The, second model was the unconstrained model (i.e., free model) where the correlation parameter between two constructs was not manipulated (not fixed at 1.00) (Joreskog 1971).

The  $\chi^2$  value was generated for both constrained and unconstrained models with the respective degrees of freedom. Afterwards, a  $\chi^2$  difference test was performed on the two models. A significantly lower  $\chi^2$  value for the unconstrained (free) model demonstrates that discriminant validity has been achieved (Anderson and Gerbing 1988; Bogazzi and Phillips 1982). Table 4.16 indicates that all of the constructs possess discriminant validity.

|     | <b>Correlation value</b> | <b><math>\chi^2</math> w/Corr. fixed</b> | <b>d.f.</b> | <b><math>\chi^2</math> w/Corr. Free</b> | <b>d.f</b> | <b>Change in <math>\chi^2</math></b> | <b>Change in d.f</b> | <b>Sig.Level</b> |
|-----|--------------------------|--|-------------|---|------------|--------------------------------------|----------------------|------------------|
| 1-2 | 0.71                     | 219.86                                   | 20          | 109.55                                  | 19         | 110.31                               | 1                    | 0.00             |
| 1-3 | -0.20                    | 16.32                                    | 9           | 5.33                                    | 8          | 10.99                                | 1                    | 0.00             |
| 1-4 | 0.17                     | 45.60                                    | 14          | 38.82                                   | 13         | 6.78                                 | 1                    | 0.00             |
| 1-5 | 0.12                     | 21.09                                    | 9           | 14.77                                   | 8          | 6.32                                 | 1                    | 0.01             |
| 2-3 | -0.57                    | 193.34                                   | 20          | 147.32                                  | 19         | 46.02                                | 1                    | 0.00             |
| 2-4 | 0.34                     | 149.59                                   | 27          | 122.50                                  | 26         | 27.09                                | 1                    | 0.00             |
| 2-5 | 0.31                     | 103.05                                   | 20          | 34.18                                   | 19         | 68.87                                | 1                    | 0.00             |
| 3-4 | -0.45                    | 91.13                                    | 14          | 50.98                                   | 13         | 40.15                                | 1                    | 0.00             |
| 3-5 | -0.28                    | 45.69                                    | 9           | 25.60                                   | 8          | 20.09                                | 1                    | 0.00             |
| 4-5 | 0.34                     | 81.25                                    | 14          | 56.14                                   | 13         | 25.11                                | 1                    | 0.00             |

**Note:** Corr = Correlation; 1 = familiarity; 2 = expertise; 3 = internal search; 4 = Destination Specific External Information Search; 5 = External Information Search from Personal Sources

A closer examination of the table reveals that many of the model's constructs are correlated. Correlation coefficients range between +1 and -1. Most experts consider correlation coefficients between +1 and +0.8 or between -1 and -0.8 to be "highly correlated," between +0.8 and +0.6 or between -0.8 and -0.6 to be "moderately correlated," between +0.6 and +0.4 or between -0.6 and -0.4 to have a "weak" correlation, and between +0.4 and +0.2 or between -0.4 and -0.2 to possess "very weak" or "low" correlation, and between +0.2 and -0.2 to exhibit "little" or "no" correlation (Burns and Bush 1995).

Most of the relationships in the proposed model show promise that they are correlated (having already established statistical significance). For instance, the correlation between familiarity and expertise construct (i.e., 1-2) falls in the "moderately correlated" category (.71) whereas the correlations between expertise and internal search (i.e., 2-3) and internal information search and destination specific external information search (i.e., 3-4) show some correlation with coefficients of -0.57 and -0.45, respectively. It is important to keep in mind that as the discriminant validity tests are being conducted, the indirect and direct paths are not defined, but rather the relationships are being examined two by two, so the correlations of the relationships during the discriminant validity testing will most probably differ greatly from the correlations generated from the run of the actual model. Nonetheless, having some indication of correlation at this level is a good sign that relationships do exist between the model's variables, although all possess discriminant validity.

## **Convergent Validity**

Convergent validity is the overlap between alternative measures that are intended to measure the same construct but that have different sources of undesired variation (Judd, Smith and Kidder 1991). In other words, if several observed indicators are utilized to measure a theoretical construct (i.e., latent variable), those observed indicators should share a good deal of variance (converge together). However, too much overlap could indicate that discriminant validity is violated. Since the evidence presented earlier indicates that discriminant validity has been achieved in this study, this is not a concern at this point.

In estimating convergent validity for structural equation modeling studies, examining the standardized confirmatory factor analysis (CFA) parameters' estimated pattern coefficient is one method often used (Marsh and Grayson 1995). Convergent validity can be assessed from the measurement model by determining whether each indicator's estimated pattern coefficient on its posited underlying construct factor is significant (Anderson and Gerbing 1988). Statistically significant large factor loadings indicate convergent validity. That is, if the values in the off diagonal are large, convergent validity is achieved.

As shown in Table 4.13, all of the estimated pattern coefficients on their posited underlying construct factors were significant at the 0.05 significance level (i.e., each had a t-value  $> \pm 1.96$ ). In fact, the smallest t-value was 9.79. Therefore, convergent validity was achieved for all the variables in the study.

It is evident from the analysis performed above that the proposed measurement model for “traveler’s information search behavior ” is a five-factor structure composed of (1) familiarity, (2) expertise, (3) internal search, (4) external information search from personal sources, and (5) destination specific external information search and these five factors are correlated. There are total of 18 observed variables. X1 (compared to average person, I am very familiar with a wide variety of vacation destinations), X2 (compared to my friends, I am very familiar with a wide variety of vacation destinations) and X3 (compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations), load onto the familiarity construct. X5 (automaticity), X6 (expertise in utilizing memory), X7 (expertise in building cognitive structures), X8 (expertise in analysis) and X9 (expertise in elaboration) load onto the expertise construct. X10 (I make my travel decisions based on what I already know), X11 (I make my travel decisions without gathering any information from any information sources) and X12 (before I start planning my vacation, I am likely to search for information) load onto the internal search construct. X17 (get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce), X18 (get information from state/city travel offices) and X19 (get information from national government tourist offices;) load onto the destination specific external information search construct. X13 (get information from friends and family), X14 (get information from travel consultants [e.g., travel agents]), X15 (get information from TV, radio, newspaper and/or magazine advertisements) and X16 (get information from magazine reports) load onto the external information search from personal sources. Examination of uni-dimensionality of each construct indicated that each observed variable loads on one and only one factor. In addition, errors of measurement associated with each observed variable were

uncorrelated. Examination of validity and reliability indicated that proposed measurement model was valid and reliable.

### **Testing the Proposed Model and Hypotheses**

The primary purpose of this study is to examine the effects of a traveler's prior product knowledge on his/her information search behavior. More specifically, the intention is to investigate: (1) the influence of familiarity on expertise, internal information search and two types of external information search behavior of travelers; (2) the effects of expertise on internal information search and two types of external information search behavior; and (3) the impact of internal information search behavior on two types of external information search behavior of travelers.

Previous chapters have described and explained the logic behind the basic theoretical model and hypotheses guiding the current study. Structural equation modeling (i.e., LISREL VIII) was used to test the "goodness of fit" of the proposed model.

### ***Structural Equation Model***

Structural equation modeling is a comprehensive statistical approach to testing hypotheses about relationships among observed and latent variables. Structural equation modeling, resulting from an evaluation of multi-equation modeling, developed principally in econometrics and merged with the principles of measurement from psychology and sociology. Structural equation modeling has emerged as an integral tool in both managerial and academic research (Austin and Calderon 1996; Bentler 1980 1988; Breckler 1990; Steiger 1990).

Structural equation modeling is a multivariate statistical technique that takes a confirmatory (i.e., hypothesis testing) approach to the multivariate analysis of a structural theory. The most obvious difference between structural equation modeling and other techniques is the use of separate relationships for each of a set of dependent latent variables. Structural equation modeling estimates a series of separate, but interdependent, multiple regression equations simultaneously by specifying the structural (causal) relationships proposed based on the hypothesized structural model. The structural model defines the pattern of relations among the unobserved factors (latent constructs) and is typically identified in schematic diagrams by the presence of interrelated ellipses, each of which represents a hypothetical construct (or factor). First, in this hypothesized structural model, the relationships among the constructs (latent variables, factors) are specified. Then, the hypothesized structural model is tested statistically in a simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data.

Figure 4.1 presents the model being tested in this research. The model proposes that two types of external information search behavior of travelers are influenced by the internal information search, expertise and familiarity of travelers. It suggests that internal information search is influenced by travelers' familiarity and expertise. In addition, the model also suggests that travelers' familiarity influences their expertise. The details of each construct were discussed and the validity and reliability of measurement scales were confirmed earlier. In this section, the proposed structural model will be assessed.

As recommended by Anderson and Gerbing (1988) for assessing the structural model under a two-step approach, a series of nested structural models were tested. A nested model,  $M_2$ , is nested within another model,  $M_1$ , when its set of freely estimated parameters is a subset of those estimated in  $M_1$ , and this can be denoted as  $M_2 < M_1$ . One or more freely estimated parameters in  $M_1$  are constrained, fixed at zero, in  $M_2$ . The first structural sub-model is the saturated structural sub-model ( $M_s$ ). A saturated structural sub-model is formally equivalent to a confirmatory measurement model. In a saturated structural sub-model all parameters (i.e., unidirectional paths) relating the constructs to one another are estimated. The second structural sub-model is the null structural sub-model ( $M_n$ ). In a null structural sub-model all parameters relating the constructs to one another are fixed at zero. In other words, there are no posited relations of the constructs to one another. The third structural sub-model is the proposed (hypothesized) theoretical model ( $M_t$ ) in this study. Given their definitions, this set of three structural sub-models is nested in a sequence such that ( $M_n < M_t < M_s$ ).

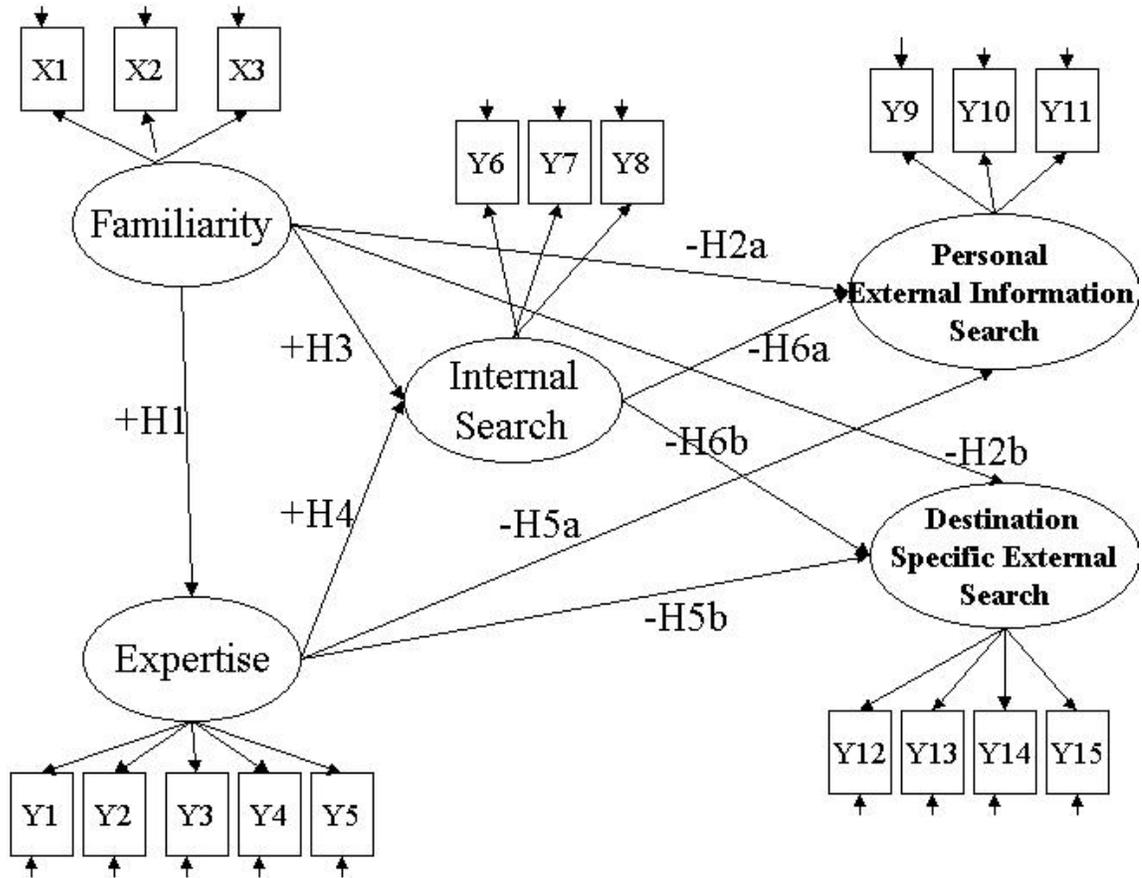
Before all three nested models were tested, the possibility that any structural model that would have acceptable goodness of fit existed was assessed as recommended by Anderson and Gerbing (1988) and Bentler and Bonett (1980). To assess whether any structural model has acceptable goodness of fit, a pseudo chi-square test was utilized (Bentler and Bonett, 1980). In a pseudo chi-square test a pseudo chi-square statistic is constructed from the chi-square value for the saturated model ( $M_s$ ) (the smallest value possible for any structural model) with the degrees of freedom for the null structural sub-model ( $M_n$ ). The pseudo chi square test result in this study was found to be significant (pseudo  $\chi^2_{(153)} = 348.20, P = .00$ ). The significant pseudo chi-square test indicates that no structural model would give acceptable fit, because it would have a chi-

square value greater than or equal to the value for the saturated model ( $M_s$ ) with fewer degrees of freedom than for the null structural sub-model ( $M_n$ ). However, one should remember that, like the chi-square value, a pseudo chi-square value tends to be large in large samples. The sample size was 447 for this study. If the sample size was decreased to 207, the pseudo chi-square test would become insignificant (pseudo  $\chi^2_{(153)} = 179.86, P = .07$ ). Therefore, one should be very careful when assessing the fit of any model based on the results of the pseudo chi-square test and one should pay special attention to the sample size of the study because large sample sizes produce significant pseudo chi-square values, as shown above.

### ***Testing the Hypothesized (Theoretical) Structural Model***

Figure 4.2 presents the hypothesized information search model that is assessed. A close examination of the Figure 4.2 reveals the structural part of the model has five constructs (latent variables) and one (1) of these latent variables is the independent latent variable and the other four (4) are dependent latent variables. The independent latent variable is the familiarity construct. As shown in Figure 4.2, the independent measurement model comprises three (3) observed indicator variables (X1, X2 and X3) along with their related measurement error terms. The dependent latent variables are the expertise, internal search, external information search from personal sources and destination specific external information search constructs. The dependent measurement model is comprised of 15 observed indicator variables (Y1 – Y15), accompanied by their associated error terms.

**Figure 4.2**  
**Hypothesized Model with Measurement Items**



Note: X1 Compared to average person, I am very familiar with a wide variety of vacation destinations; X2 Compared to my friends, I am very familiar with a wide variety of vacation destinations; X3 = Compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations; Y1 = Automaticity; Y2 = Expertise in utilizing memory; Y3 = Expertise in building cognitive structures; Y4 = Expertise in analysis; Y5 = Expertise in elaboration; Y6 = I make my travel decisions based on what I already know; Y7 = I make my travel decisions without gathering any information from any information sources; Y8 = Before I start planning my vacation, I am likely to search for information; Y9 = Get information from friends and family; Y10 = Get information from travel consultants (e.g., travel agents); Y11 = Get information from TV, radio, newspaper and/or magazine advertisements; Y12 = Get information from magazine reports; Y13 = Get information from destination specific sources (e.g., Visitors and Conventions Bureau and/or Chamber of Commerce); Y14 = Get information from state/city travel offices; Y15 = Get information from national government tourist offices.

In structural equation modeling, two types of matrices are examined: a Gamma matrix and a Beta matrix. The Gamma matrix specifies the regression coefficients that link dependent

and independent constructs (latent variables) while the Beta matrix specifies the regression coefficients that link dependent constructs. A close examination of the structural paths of the hypothesized model reveals that there are four parameters to be estimated in Gamma matrix and five parameters to be estimated in Beta matrix. Each of these matrices represents one of the hypotheses proposed earlier. Both Gamma and Beta matrices that are assessed are presented in Table 4.17. Subscripts numbers in Table 4.17 represents the hypothesized paths for both the Gamma ( $\gamma$ ) and the Beta ( $\beta$ ) matrices. For example, while  $\gamma_{11}$  in the Gamma matrix represents hypothesis 1 (there is a direct positive relationship between familiarity and expertise),  $\beta_{21}$  in the Beta matrix represents hypothesis 4 (there is a positive relationship between expertise and internal search).

| <b>Table 4.17</b>   |               |                 |  |   |
|---|---------------|-----------------|--|---|
| <b>Pattern of Estimated Parameters in the Gamma and Beta Matrices</b> |               |                 |  |   |
| <b>Gamma Matrix</b>   |               |                 |  |   |
|   | Expertise     | Internal Search | Destination Specific External Information Search | External Information Search from Personal Sources |
| Familiarity   | $\gamma_{11}$ | $\gamma_{12}$   | $\gamma_{13}$                                    | $\gamma_{14}$                                     |
| <b>Beta Matrix</b>  |               |                 |  |   |
|   | Expertise     | Internal Search | Destination Specific External Information Search | External Information Search from Personal Sources |
| Expertise   | 0             | 0               | 0  | 0   |
| Internal Search   | $\beta_{21}$  | 0               | 0  | 0   |
| Destination Specific External Information Search                      | $\beta_{31}$  | $\beta_{32}$    | 0  | 0   |
| External Information Search from Personal Sources                     | $\beta_{41}$  | $\beta_{42}$    | 0  | 0   |

Note:  $\gamma$  = Gamma;  $\beta$  = Beta

First subscript number represents the row number and the second subscript number represents the column number.

Table 4.18 presents the selected goodness-of-fit statistics for the hypothesized traveler's information search behavior model. The  $\chi^2$  value with 123 degrees of freedom is 348.33 (P = 0.00). This indicates that the model fit was not good. Given the known sensitivity of the  $\chi^2$  statistics test to sample size, the use of the  $\chi^2$  index provides little guidance in determining the extent to which the model does not fit in studies where the sample size is large. Since the sample size of this study is large (N = 447), it is more beneficial to rely on other fit indices. Table 4.18 presents a number of fit indices that were explained in detail earlier. All of these fit indices indicate that the proposed hypothesized structural sub-model fits well to the data. The values of all of the fit indices were above the recommended threshold values.

| <b>Table 4.18</b><br><b>Fit Indices of the Proposed Theoretical Model</b><br><b>(N = 447)</b> |              |
|---|--------------|
| <b>Fit Index</b>  | <b>Value</b> |
| Chi-Square with 123 degrees of freedom  | 348.33       |
| Goodness-of-Fit Index (GFI)   | 0.92         |
| Adjusted Goodness-of-Fit index (AGFI)   | 0.90         |
| Parsimony Goodness-of-Fit Index (PGFI)  | 0.70         |
| Normed of Fit Index (NFI)   | 0.90         |
| Non-Normed Fit Index (NNFI)   | 0.92         |
| Parsimony Normed Fit Index (PNFI)   | 0.72         |
| Comparative Fit Index (CFI)   | 0.91         |
| Incremental Fit Index (IFI)   | 0.90         |
| Critical N (CN)   | 205.37       |
| Root Mean Square Residual (RMR)   | 0.048        |
| Standardized RMR  | 0.045        |

As shown in Table 4.18, all of the goodness-of-fit statistics of the proposed theoretical model are above the recommended threshold values except for the chi-square value. The chi-square value is found to be high because of the large sample size as explained earlier. The values

of the other goodness-of-fit statistics values were as follow: Goodness-of Fit Index (GFI), 0.92; Adjusted Goodness-of-Fit index (AGFI), 0.90; Parsimony Goodness-of-Fit Index (PGFI), 0.70; Normed of Fit Index (NFI), 0.90; Non-Normed Fit Index (NNFI), 0.92; Parsimony Normed Fit Index (PNFI), 0.72; Comparative Fit Index (CFI), 0.91; Incremental Fit Index (IFI), 0.90; Critical N (CN), 205.37; Root Mean Square Residual (RMR), 0.048; and standardized RMR, 0.045.

The estimated standardized path coefficients for the hypothesized model are presented in Table 4.19. As shown in Table 4.19, all of the hypothesized paths in the model are significant at a .05 probability level. The estimated standardized path coefficients for the paths from familiarity to expertise is .60 ( $p < .05$ ), to internal search is .31 ( $p < .05$ ), to destination specific external information search is -.29 ( $p < .05$ ) and to external information search from personal sources is -.33 ( $p < .05$ ). The estimated standardized path coefficients for the paths from expertise to internal search (-.68), to destination specific external information search (.39) and to external information search from personal sources (.20) are also significant at the .05 probability level.

|                 | Expertise | Internal Search | Destination Specific External Information Search | External Information Search from Personal Sources |
|-----------------|-----------|-----------------|--|---|
| Familiarity     | .60*      | .31*            | -.29*  | -.33*   |
| Expertise       |           | -.68*           | .39*   | .20*  |
| Internal Search |           |                 | -.24*  | -.25*   |
| R2              | .47*      | .33*            | .28*   | .29*  |

Note: \* significant at .05 probability level.

## **Analysis of the Hypotheses**

The hypothesized theoretical model and proposed hypotheses were tested using LISREL 8. Results indicated that all of the proposed paths were significant. However, results only supported four of the proposed six main hypotheses. Hypotheses that were proposed to examine the relationship between expertise and internal information search and two types of external information search were not supported. Hypothesized relationships between expertise and internal search (i.e., hypothesis 4) and between expertise and external search (i.e., hypotheses 5a and 5b) were found to be significant but did not support the hypothesized direction of the relationship. This section of the chapter will provide a detailed discussion analysis of the hypotheses.

**Hypothesis 1:** There is a direct positive relationship between familiarity and expertise.

In hypothesis one, it was postulated that expertise is a positive function familiarity. As discussed in Chapter II, familiarity comes before expertise and an increase in travelers' familiarity is likely to result in an increase in their expertise. The results of the LISREL analysis supported this hypothesis. Expertise is found to be significantly predicted by familiarity ( $\gamma = .60, p < 0.05$ ). Familiarity accounted for 47% of the variance in expertise.

Results reported here are consistent with previous research findings. Several researchers reported that an increase in travelers' familiarity increases their expertise by reducing the effort and cognitive resources required during information search, consumer decision-making and

product usage (Chi, Glaser and Farr 1988; Einhorn and Hogarth 1981; Hoyer 1984; Payne 1976; Russo and Doshier 1893; Spence and Brucks 1997). Since most consumer behavior is viewed as a complex series of mental and physical tasks, a decrease in cognitive demand for any particular tasks increases the cognitive resources available to perform other tasks, and thus, improves overall performance (Alba and Hutchinson 1987).

**Hypothesis 2:** There is a direct negative relationship between familiarity and external search.

As discussed earlier, it was found that travelers are likely to utilize two different groups of external information sources. The first group of information sources was external information search from personal sources and the second group was called destination specific external information search. Therefore, it was necessary to propose two sub-hypotheses to test the hypothesis 2. These two sub hypotheses are:

**Hypothesis 2a:** There is a direct negative relationship between familiarity and utilization of external information search from personal sources.

**Hypothesis 2b:** There is a direct negative relationship between familiarity and utilization of destination specific external information search.

These two hypotheses propose that as travelers' familiarity with vacation destination increases they are less likely to rely on external information sources and more likely to make their vacation decisions based on what they know. Both of the hypotheses were supported by the

LISREL analysis. Familiarity significantly influenced travelers' utilization of external information search from personal sources and destination specific external information search (gamma = -.20, -.33,  $p < 0.05$ , respectively). Results indicate that as travelers' familiarity with vacation destinations increase, they are less likely to rely on external information sources to make their vacation decisions.

These findings were also supported by previous research. Coupey et al. (1988) reported that consumers are likely to utilize fewer external information sources because in familiar product categories, familiar consumers are likely to know which attributes are most important and therefore, they are likely to search for external information primarily on those attributes. As a result they are likely to utilize fewer but very specific external information sources. They are likely to rely on external information sources to make decisions less than unfamiliar consumers.

Woodside and Ronkainen's (1980) findings indicate that travelers who are familiar with a destination are less likely to rely on external information sources. For example, they reported that only about 20 percent of travelers to South Carolina utilize travel agents, motor clubs and tour operators to help plan their trips. However, overseas travelers and first time (unfamiliar) travelers to a destination tend to utilize more external information sources to make their travel plans. Their findings suggest that first time and overseas travelers tend to rely on travel agents and tour operators for information more frequently than domestic and repeat visitors (Woodside and Ronkainen 1980). Sheldon and Mak's (1987) findings also support Woodside and Ronkainen's (1980) findings.

**Hypothesis 3:** There is a direct positive relationship between familiarity and internal search.

In hypothesis three, it was postulated that travelers who are highly familiar with vacation destinations are more likely to make their decisions based on what they know compared to travelers who are not very familiar with vacation destinations. This hypothesis was supported by the LISREL analysis. Familiarity significantly influenced travelers' utilization of internal information search ( $\gamma = .31, p < 0.05$ ). Results indicate that as travelers' familiarity with vacation destinations increase, they are more likely to rely on what they know to make their vacation decisions.

Findings of this study are consistent with findings of previous studies. Brucks (1985) reported that consumers familiarity with a product category leads them to direct acquisition of available information from their memory. If the consumer has sufficient information in his/her memory, s/he may not need to search for additional information and makes his/her decision based on internal information (Brucks 1985). Brucks' (1985) findings were also supported by Coupey et al. (1988). A number of researchers argue that if travelers are highly familiar with a destination, they may not need to collect any additional information from external sources for a routine trip to family or friends, or for repeat visitation of a certain destination because they are likely to make their decision based on their familiarity with the destination (Etzel and Wahlers 1985; Snepenger and Snepenger 1993 ).

**Hypothesis 4:** There is a direct positive relationship between expertise and internal search.

In hypothesis four, it was postulated that as travelers' expertise with destinations and vacation decision making process increases travelers are more likely to rely on what they know. This hypothesis was not supported by the LISREL analysis (beta = -.68). Results indicate that there is a negative relationship between travelers' expertise and utilization of internal search. As travelers' expertise increases, they are less likely to rely on what they know to make their vacation decisions.

The negative relationship between expertise and internal information search may be explained by consumers limited processing capacity. Several researchers argue that prior product knowledge encourages information search by making it easier to process new information (Coupey, Irwin and Payne 1998; Johnson and Russo 1984; Ozanne, Brucks and Grewal 1992). For example, expertise may allow the individual to formulate more questions about the product and its features and, therefore, may lead to more external information search rather than relying what consumer has already known about the product.

Another explanation for the negative relationship might be the traveler's level of involvement. Expert travelers are more likely to be highly involved with the product category than travelers who are not expert. Literature suggests that, when making decisions, highly involved individuals will go through an extended problem solving process: recognizing the problem, actively searching for information, evaluating the alternatives, and then making the purchase decision (Clarke and Russell, 1978). Highly involved individuals are likely to use more criteria (Mitchell 1980); search for more information using available external information sources (Beatty and Smith 1987; Venkatraman 1988); use more information sources (Jamrozy et

al. 1996); accept fewer alternatives (Petty and Cacioppo 1981); examine the importance of information (Perdue 1993); process relevant information in detail (Celsi and Olson 1988; Chaiken 1980); produce more product related thoughts and make more product inferences (Celsi and Olson 1988); and want to know the strengths and weaknesses of possible alternatives in more detail (Maheswaren and Meyers-Levy 1990). Therefore, expert travelers may rely on external information sources rather than internal information sources.

**Hypothesis 5:** There is a direct negative relationship between expertise and external search.

As discussed earlier, factor analysis indicated that travelers are likely to utilize two different types of external information search. The first construct of information search was called external information search from personal sources and the second construct was called destination specific external information search. Therefore, it was necessary to propose two sub-hypotheses to test hypothesis 5. These two sub hypotheses are:

**Hypothesis 5a:** There is a direct negative relationship between expertise and utilization of external information search from personal sources.

**Hypothesis 5b:** There is a direct negative relationship between expertise and utilization of destination specific external information search.

Both hypothesis 5a and 5b were not supported by the LISREL analysis (beta = .39, .20 p <0.05). Results indicated that there was a positive relationship between expertise and external

information search, that is, as a traveler's expertise increases s/he is likely to utilize more external information sources to make his/her vacation decisions. As explained above this might be because of their level of involvement and/or their processing capacity limitations (please see the explanation for hypothesis four).

**Hypothesis 6:** There is a direct negative relationship between internal search and external search.

As explained above, external search is examined as having sub-constructs. Therefore, two sub-hypotheses were proposed. These sub-hypotheses are:

**Hypothesis 6a:** There is a direct negative relationship between internal information search and utilization of external information search from personal sources.

**Hypothesis 6b:** There is a direct negative relationship between internal information search and utilization of destination specific external information search.

It was proposed that travelers are less likely to utilize external information sources to make their vacation decision if they believe that they have enough knowledge about vacation destinations. Both hypotheses 6a and 6b were supported (-24, -0.25,  $p < 0.05$ , respectively).

This finding is consistent with findings of previous studies. Researchers argue that in both familiar and unfamiliar product categories, consumers are likely to search memory for some information to help guide them to make decisions. However, familiarity with a product category

is likely to lead them to direct acquisition of available information from their memory (Brucks 1985; Coupey et al. 1988). If the consumer believes that s/he has sufficient information in his/her memory, s/he may not search for additional information from external information sources and makes his/her decision based on internal information (Brucks 1985).

### **Chapter Summary**

Chapter IV covered the data analysis from both the pretest of the scale items and the final study. First, the results of the pretest were presented. In this section of Chapter IV, the method of sampling and descriptive information of the pretest sample were discussed. This section also presented the statistical justification for the scales used in this study that were either modified from previous studies or those developed for the purpose of this study. This was followed by a section that provided a description of the survey method employed in this study and the demographic profiles of the final survey respondents. The third section of the chapter presented the confirmatory factor analysis results conducted to confirm the five-factor structure of expertise construct. Afterwards, the measurement model was tested using LISREL. This was followed by the test of the proposed structural equation model and hypotheses. The procedures for the validity and reliability checks were also discussed in detail.

Pretest of the proposed measurement scale indicated that external search was a two-factor structure, that is, travelers are likely to utilize more than one external information search strategies to gather information. Results suggested that some travelers are likely rely on destination specific information sources for information while others rely on external

information sources that are readily available such as their friends and relatives, travel consultants, magazine articles, etc. Because of this finding, two new hypotheses were proposed to replace each of the hypotheses 2, 5 and 6. As a result, Chapter IV, examined nine (9) hypotheses. Six (6) of those hypotheses were supported.

Results of the study failed to support three (3) of the proposed hypotheses (i.e., hypotheses 4, 5a, and 5b). Hypothesized relationships between expertise and internal search (i.e., hypothesis 4), and between expertise and external search (i.e., hypotheses 5a and 5b) were found to be significant but did not support the hypothesized direction of the relationship. It was hypothesized that the relationship between expertise and internal search was positive, however, findings indicated that the relationship was significant but negative. That is as traveler's expertise increases, his/her utilization of internal information search decreases. The relationship between expertise and external search was hypothesized to be negative, however, findings indicated that it was significant but positive. As traveler's expertise increases, his/her utilization of external information search increases.

The next chapter will discuss the implications of the findings of this study in greater detail, as well as discuss the limitations of this study and what future direction research should take along the line of the focus of this study.

## **CHAPTER V – DISCUSSION AND CONCLUSION**

### **Introduction**

This chapter presents the summary, discussion and implications of the findings of the study. In the first section of the chapter, the summary and discussion of the hypotheses testing are presented. The managerial and theoretical implications of the findings followed by the limitations of the study are discussed next. Finally, the chapter concludes with suggestions for future research.

### **Summary of the Findings**

This study developed a traveler's information search model that attempts to identify the factors that are likely to influence travelers' information search behavior. The proposed theoretical model addressed travelers' familiarity and expertise (the level of travelers' prior product knowledge) and their influences on travelers' internal and external information search behavior. The proposed theoretical model also included the factors that are likely to influence travelers' familiarity and expertise (prior product knowledge) with tourism services and products and their information search behavior. However, due to the complex nature of the proposed model, it was decided that examining only a portion of the proposed model in detail would help to better understand the relationship between travelers' prior knowledge and their information search behavior rather than examining the whole model. Therefore, only part of the model presented in Figure 3.1 was empirically tested. The model presented in Figure 3.1 examines the

impacts of travelers' prior knowledge on their internal and external information search behavior. The model analyzed (1) the impact of familiarity on expertise; 2) the impact of familiarity on internal search; 3) the impact of familiarity on external search; 4) the impact of expertise on internal search; 5) the impact of expertise on external search; and finally 6) the impact of internal search on external search.

Before conducting the actual study, a pretest was done to make sure that proposed constructs and the items that are proposed to measure those constructs are valid and reliable. Measurement scales of constructs were refined based on the findings of the pretest. The results of the pretest also suggested that the external search construct has a two-factor structure. As a result, the proposed model was modified to accommodate the findings of the pretest. The modified theoretical model is presented in Figure 4.1.

The study specifically focused on travelers to domestic and international destinations. This focus was selected in order to address the impact of travelers' prior product knowledge on their information search behavior. This relationship was captured by asking respondents to complete survey based on their last vacation. The result was a final usable sample of 470 travelers. Results indicated that most of the respondents were male, which contradicts the findings of other studies. The high number of responses from male respondents may be the result of using the telephone directories to obtain the mailing list. An examination of telephone directories revealed that, most of the time, telephone numbers are listed under the male partners name. Since the survey was directly addressed to the name listed in the phone book, it is not surprising to have more responses from males than females.

This study developed and tested a measurement model for the five dimensions of expertise through a pretest and an actual test. Results confirmed that expertise has five dimensions. These five dimensions of expertise are: (1) automaticity, (2) expertise in utilizing memory, (3) expertise in building cognitive structures, (4) expertise in analysis and (5) expertise in elaboration (Alba and Hutchinson 1987). Each dimension of expertise was measured by at least three (3) indicators. Therefore, a summated scale for each dimension was generated and those summated scales were used to measure expertise construct.

The results of the study also found that travelers' prior product knowledge influences the utilization of both internal and external information sources. However, the influence of two dimensions of prior product knowledge, familiarity and expertise, on internal and external search varies. While the influence of familiarity on internal search was found to be positive, it was found to be negative on external search. On the other hand, even though a positive influence of expertise on internal search and a negative influence of expertise on external search were hypothesized, the findings indicated that the influence of expertise on internal search is significant but not positive and the influence of expertise on external search is significant and positive, not negative as hypothesized. These findings will be discussed in detail in the following section.

## Discussion

The discussion section first addresses the development and testing of five dimensions of expertise. The rest of the chapter is organized around research questions that were addressed and the hypotheses that were empirically tested.

### Expertise

Five dimensions of expertise were discussed in detail in Chapter II to provide a better understanding of consumer expertise and its influence on travelers' information search behavior (Figure 2.2). These dimensions are: automaticity, expertise in utilizing memory, expertise in building cognitive structures, expertise in analysis and expertise in elaboration (Alba and Hutchinson 1987). In Chapter III, a multiple indicator measurement scale was developed for each dimension of expertise.

In Chapter IV, first a pretest was conducted on measurement scales for each dimension. The pretest resulted in refinement of the measurement scales for each dimension. Table 4.11 presents the items that remained after this step. Examination of Cronbach's Alpha reliability score of each dimension indicated that three dimensions of expertise had a Cronbach's Alpha reliability score higher than 0.70 (expertise in utilizing memory, .86; expertise in building cognitive structures, .89; and expertise in analysis, .89). Only two dimensions of expertise had a Cronbach's Alpha reliability score that was lower than 0.70 (automaticity, .64; and expertise in analysis and expertise in elaboration, .68). Since reliability scores that are between .60 and .70

represent the lower limit of acceptability (Hair, Anderson, Tatham and Black 1998), those two dimensions were included in the study.

Next, a confirmatory factors analysis was conducted on the data collected from 470 travelers who reside in Virginia. Confirmatory factor analysis resulted in elimination of five (5) indicators from the proposed model. Those items were eliminated from the proposed measurement scale to preserve the uni-dimensionality of each scale. Items that remained after this step are presented in Table 4.12. Results of the confirmatory factor analysis supported the proposition that expertise is a five-dimensional construct. Composite reliability scores of four (4) dimensions were above the recommended level of .70. (expertise in utilizing memory, .91; expertise in building cognitive structures, .90; expertise in analysis, .84; and expertise in elaboration, .71) and only one dimension's had a composite reliability score lower than .70 (automaticity, .66). Even though the reliability score of automaticity was found to be lower than .70, it was included in the study due to the fact that reliability scores that are between .60 and .70 represent the lower limit of acceptability (Hair, Anderson, Tatham and Black 1998).

Findings of this study are consistent with the assumptions of other studies that expertise has five dimensions (Alba and Hutchinson 1987). Even though, other researchers assumed/proposed that expertise is a multi-dimensional construct (Alba and Hutchinson 1987; Hasner and Zacks 1979, 1986; Welford 1976), it was not applied to travelers' information search, decision-making and choice processes and, therefore, it was not empirically tested in vacation decision-making situations. The significance of expertise having multiple dimensions is that the type of expertise required to perform a vacation decision related information search task

will vary based on the type of search task because different tasks require different types of expertise. For example, an expert surfer may evaluate (analyze) a beach resort's claims about the quality of the waves and the level of surfing related services provided by focusing and carefully inspecting its specifications. The novice, on the other hand, unable to discriminate relevant information from irrelevant and good from bad, may scan the same information, perhaps finding support for the claims in the sheer amount of information provided rather than its significance (Alba and Marmorstein 1987). Moreover, more than one type of expertise is generally required for the successful performance of particular task (Alba and Hutchinson 1987). Consumers who have expertise in certain dimensions may not be able to perform a specific task successfully while consumers who have expertise in other dimensions of expertise may. For example, a traveler who has expertise in analysis and elaboration may be able to process incoming information more efficiently and accurately than a traveler who does not have expertise in those two dimensions.

Even though each dimension of expertise may have varying effects on traveler's information search behavior, to simplify the analysis and presentation, the indicators of each dimension were summated and the resulting five summated scales were used to form an overall expertise construct.

### **Research Questions and Hypotheses**

Table 5.1 presents the summary of hypotheses testing and the standardized coefficient for each hypothesis. As presented in Table 5.1, findings of this study supported six of the proposed nine hypotheses. Three hypotheses were not supported. Even though hypotheses 4, 5a and 5b

were not supported, results indicated that the effects of travelers' expertise on internal information search, external information search from personal sources and destination specific external information search were significant. As shown in Table 5.1, the findings also indicated that the influence of travelers' expertise on utilization of destination specific external information sources was stronger than its influence on utilization of personal external information sources.

The rest of this section addresses the research questions and the hypotheses that were empirically tested.

| <b>Table 5.1<br/>Hypothesized Relationships and Results</b>       |                                  |                                |
|---|----------------------------------|--------------------------------|
| <b>Hypothesized Relationship</b>                                  | <b>Standardized Coefficients</b> | <b>Result</b>                  |
| H <sub>1</sub> : Familiarity → Expertise ( $\gamma$ )             | .60                              | Supported                      |
| H <sub>2a</sub> : Familiarity → External Search 1 ( $\gamma$ )    | -.33                             | Supported                      |
| H <sub>2b</sub> : Familiarity → External Search 2 ( $\gamma$ )    | -.29                             | Supported                      |
| H <sub>3</sub> : Familiarity → Internal Search ( $\gamma$ )       | .31                              | Supported                      |
| H <sub>4</sub> : Expertise → Internal Search ( $\beta$ )          | -.68                             | Significant, but Not Supported |
| H <sub>5a</sub> : Expertise → External Search 1 ( $\beta$ )       | .20                              | Significant, but Not Supported |
| H <sub>5b</sub> : Expertise → External Search 2 ( $\beta$ )       | .39                              | Significant, but Not Supported |
| H <sub>6a</sub> : Internal Search → External Search 1 ( $\beta$ ) | -.25                             | Supported                      |
| H <sub>6b</sub> : Internal Search → External Search 2 ( $\beta$ ) | -.24                             | Supported                      |

Note: External Search 1 = External Information Search from Personal Sources; External Search 2 = Destination Specific External Information Search;  $\gamma$  = Gamma;  $\beta$  = Beta

### ***Research Question 1:***

*What is the influence of travelers' familiarity on their expertise?*

Research question 1 was addressed by one hypothesis (Hypothesis 1: There is a direct positive relationship between familiarity and expertise). Findings of this study supported the proposed hypothesis that there is a direct positive relationship between familiarity and expertise. This finding indicates that expertise is a function of familiarity and as travelers' familiarity increases their expertise increases too. This finding is consistent with previous research findings. Alba and Hutchinson (1987) suggested that familiarity is a prerequisite for expertise because familiarity represents the early stages of learning and expertise represents the later stages of learning. Therefore, an increase in travelers' familiarity is likely to result in an increase in their expertise. However, this increase may not be the same for all dimensions of expertise. For example, increasing familiarity may not result in an instant automated decision. At the most basic level, mere exposure to a vacation destination may result in perceptual enhancement of the destination image during the search for a vacation destination (Jacoby 1983). Repeated exposure to a single vacation destination or destination attribute may lead to easy retrieval of information about that single destination or destination attribute (Crowder 1976; Hintzman 1976; Moorthy et al. 1997). Travelers require a wider and repeated exposure to several vacation destinations to accumulate enough information about those destinations in order to be able categorize them. Ability to categorize is likely to enable travelers to include more destinations in their memory-based evoked sets. As new levels of categorization and new criteria for categorization are learned, the differences between destinations of the same category and the similarities between

destinations of different categories become well know to an expert (Murphy and Wright 1984). Increased expertise results in a more complicated, but more accurate category structure (Weber and Crocker 1983). After a significant increase in travelers' expertise in categorizing, they are more likely to use processing decision strategies because the cognitive effort required to make use of distinctions is presumably reduced and they can utilize "freed" resources for analysis and elaboration (Anderson 1983; Chase and Simon 1973; Hayes-Roth 1977).

***Research Question 2:***

*What is the influence of travelers' familiarity and expertise on their information search behavior?*

The second research question addressed the influence of familiarity and expertise on travelers' utilization of internal and/or external information sources. These relationships were examined through hypotheses 2, 3, 4, and 5. The examination of these hypotheses revealed the strength and direction of relationships between familiarity and expertise and utilization of information sources.

As explained in Chapter IV, the pretest revealed that external information search has a two-factor structure meaning that travelers are likely to utilize two different groups of external information sources (or external information strategies) before they make their vacation decisions. The first external information strategy includes gathering information from destination specific information sources such as a destination's Convention and Visitors Bureau, chamber of

commerce, city/state travel offices, national government travel offices, etc. The second external information search strategy includes gathering information from personal external information sources such as friends and family, travel consultants, magazine articles and reports, etc. Due to the existence of a two-factor structure, two sub-hypothesis were proposed to expand hypotheses 2 and 5 by including both factors.

**Travelers' familiarity and their information search behavior:** This section of the discussion will address the findings of how familiarity affects travelers internal and external information search. The relationship between familiarity and internal search was examined by hypothesis 3 and the relationship between travelers' familiarity and their utilization of external information search was examined by hypothesis 2. A direct positive relationship between familiarity and internal search and a direct negative relationship between familiarity and utilization of external information were hypothesized. The result of this study supported the hypothesized relationships.

Like other studies, this study found a negative relationship between familiarity and internal information search meaning that travelers who are highly familiar with destinations are likely to rely on what they know to make their vacations decisions (Etzel and Wahlers 1985; Snepenger and Snepenger 1993). Findings also indicated that there is a significant negative relationship between familiarity and utilization of external information search meaning that as travelers' familiarity with vacation destinations increases they are less likely to utilize an external information search.

These results are consistent with the findings of other researchers that travelers who are highly familiar with destinations are likely to utilize a fewer number of external information sources compared to travelers who are low in familiarity (Coupey et al. 1988; Fodness and Murray 1997, 1998, 1999; Sheldon and Mak 1987; Snepenger and Snepenger 1993; Woodside and Ronkainen 1980) and they are more likely to rely on internal information to make their vacation decisions.

Before making a vacation destination decision, all travelers are likely to search their memory for some information to help guide them to make that decision. Travelers' familiarity with vacation destinations is likely to lead them to direct acquisition of available information from their memory (Brucks 1985; Coupey et al. 1988; Fodness and Murray 1997, 1998). If the traveler believes that s/he has sufficient information in his/her memory, s/he may not search for additional information and makes his/her decision based on available internal information (Brucks 1985). Even if they think that they need additional information, highly familiar travelers are still likely to utilize fewer external information sources because they are likely to know what attributes are important ones and, therefore, only perform an external search on those attributes if they do not enough information in their memory about those attributes (Coupey et al.). Since they are not likely to perform an external information search on every attribute, they are more likely to utilize a small set of external information sources to search for the information they need to make their vacation decisions. On the other hand, travelers who are low in familiarity are more likely to rely on external information sources to make their vacation decisions than familiar travelers (Sheldon and Mak 1987; Snepenger et al. 1990; Woodside and Ronkainen 1980) since they do not have enough knowledge about the destination to make their vacation decisions.

Another finding of this study is that highly familiar travelers are more likely to utilize destination specific external information sources than personal external information sources (see shown in Table 4.19). Familiar travelers are likely to focus on particular destination attributes simply because they are aware of the existence of those attributes (Brucks 1985). Therefore, they are more likely to utilize destination specific external information sources to gather information about those destination attributes. On the other hand, novice consumers may have a hard time comprehending and evaluating destination related information because of their inferior ability to comprehend and evaluate the destination related facts (Anderson and Jolson 1980). Because of their limited ability to process the product related information, unfamiliar travelers are more likely to sample the opinions of others and utilize personal external information sources (Brucks 1985; Furse, Punj and Steward 1984).

**Expertise and information search:** This section of the discussion will address the findings of how travelers' expertise affects their internal and external information search behavior. The relationship between expertise and internal search was examined by hypothesis 4 and the relationship between travelers' expertise and their utilization of external information search was examined by hypothesis 5. A direct positive relationship between expertise and internal search and a direct negative relationship between expertise and utilization of external information were hypothesized.

The relationship between expertise and internal information search and external information search were found to be significant, however, the direction of the relationships were

the inverse of what had been hypothesized (i.e., H4, H5a and H5b were significant, but not supported). These findings indicated that as travelers' expertise increases, travelers are less likely to utilize internal information search and more likely to use external information sources to make vacation decisions.

The negative relationship between expertise and internal information search and the positive relationship between expertise and external search maybe explained by consumers limited processing capacity. Literature suggest that prior product knowledge (both expertise and familiarity), or information held in an individual's memory, facilitates easier and more efficient processing of information (Johnson and Russo 1984; Rao and Sieben 1992. As discussed earlier, familiarity represents the early stages of learning and expertise represents the latter stages of learning. At the early stages of learning, consumers tend to be low in familiarity due to the fact that they have no or very little knowledge about the product. Therefore, they are more likely to perform an external information search to make product related decisions. As they learn more about the product, their familiarity with the product also increases. As their familiarity increases, they are more likely to rely on internal search than external search because, now, they believe that they know more about the product and therefore, they do not need to gather much information and they can easily process all the information they have in their memory to make the best possible decision. However, in reality, they still do not have much information about each attribute of the product. They are still limited in their processing abilities because they can only process the information available in their memory. They still are not sure which attributes of the product and what pieces of information are the most relevant and important ones for the decision at hand. As their expertise increases, they become aware of the attributes and pieces of

information that are relevant to the decision at hand (Johnson and Russo 1984; Rao and Sieben 1992). In addition, increasing expertise may allow the individual to formulate more questions about the product and its features. Therefore, they start realizing that what they have in their memory is not sufficient enough to make the best decision. As a result, they start searching for external information to gather the most relevant information and to answer the questions they generated.

Another explanation for the negative relationship between expertise and internal search and the positive relationship found between expertise and external search might be the traveler's level of involvement. By definition, product related experiences at the most inclusive level include advertising exposures, information search, interactions with salespersons, choice and decision-making, purchasing, and product usage in various situations. The term consumer expertise is also used in a very broad sense that includes both the cognitive structures (e.g., beliefs about product attributes) and cognitive processes (decision rules for acting on those beliefs), required to perform product related tasks successfully. Therefore, it is safe to assume that travelers who are expert are more likely to be highly involved with vacation destinations than travelers who are not expert. Literature suggests that, when making decisions, highly involved individuals will go through an extended problem solving process: recognizing the problem, actively searching for information, evaluating the alternatives, and then making the purchase decision (Clarke and Russell, 1978). Highly involved individuals are likely to use more criteria (Mitchell 1980); search for more information using available external information sources (Beatty and Smith 1987; Venkatraman 1988); use more information sources (Jamrozny et al. 1996); accept fewer alternatives (Petty and Cacioppo 1981); examine the importance of

information (Perdue 1993); process relevant information in detail (Celsi and Olson 1988; Chaiken 1980); produce more product related thoughts and make more product inferences (Celsi and Olson 1988); and want to know the strengths and weaknesses of possible alternatives in more detail (Maheswaren and Meyers-Levy 1990). Therefore, as travelers' expertise increases, they may utilize more external information sources to gather additional information about important attributes, strengths and weaknesses of each destination, and to answer the questions they generated.

The negative linear relationship between expertise and external information search behavior was hypothesized based on the findings of the studies conducted in the field of consumer behavior because studies that examine the relationship between expertise and external information search do not exist in tourism. In those studies, consumer behavior researchers examined the relationship based on tangible products (goods) (Anderson, Engledow and Becker 1979; Katona and Mueller 1955; Moore and Lehmann 1980; Newman and Staelin 1971; Swan 1969). On the other hand, in this study, travelers' information search behavior for a leisure vacation trip was examined. As discussed in chapter 1, vacation trips like most hospitality and tourism products are purchased, consumed and evaluated in the form of services. The production, consumption and evaluation of services differ from those of goods (Zeithaml, Parasuraman and Berry, 1990). The decision making process used to purchase the tourism product takes much longer than for many other products such as a television sets. Also, the traveler deals with a high-perceived risk because of high personal investment of time, effort and money (Teare 1992). Therefore, the consumer is likely to be more involved in an external information search for tourism product purchases than many other product purchases. As a result, the way a traveler

searches for external information and the importance s/he places on it is likely to be significantly different from the way a consumer searches for external information to purchase durable goods and the importance s/he places on it. These differences between durable goods and services may explain the positive relationship between travelers' expertise and their utilization external information sources found in this study.

Findings of this study are somewhat similar to the findings of Bettman and Park (1980). They suggested an inverted U-shaped relation between the consumers' knowledge and the utilization of external information sources. If, as suggested by Alba and Hutchinson (1987), familiarity represents the early stages of learning and expertise represents the latter stages of learning, results of this study confirm the existence of a U-shaped relationship between travelers' knowledge and their external information search behavior. However, findings of this study indicate that the U-shaped relationship is not inverted. Results indicate that travelers who are low in familiarity and high in expertise are likely to utilize more external information search than travelers who are high in familiarity but low in expertise. In other words, travelers with a medium level of knowledge (travelers' who are high in familiarity and low in expertise) rely on their internal information sources more than travelers with either low or high level of knowledge to make their vacation decisions.

***Research Question 3:***

*What is the influence of travelers' utilization of internal information search on their utilization of external information search?*

The third research question addressed the influence of travelers' utilization of internal information search on their utilization of external information search. The relationship between internal information search and external information search was examined by hypothesis 6. It was hypothesized that there is a negative relationship between internal information search and external information search. This hypothesized negative relationship was supported by the findings of this study.

Information search was defined as “the motivated activation of knowledge stored in memory or acquisition of information from the environment” (Engel, Blackwell and Miniard 1995). As the definition suggests, information search can be either internal or external. Internal search is based on the retrieval of knowledge from memory. On the other hand, external search consists of collecting information from the marketplace (Engel, Blackwell and Miniard 1995). When the internal search provides sufficient information regarding a trip decision, then external search is obviously unnecessary (Beatty and Smith, 1987). However, if the internal information search proves inadequate, travelers may decide to collect additional information from external sources.

Findings of this study indicated that travelers tend to utilize two different information search strategies. They are: external information search from personal sources and external information from destination specific external information sources. Expert travelers are likely to utilize destination specific external information sources because of the fact that they are likely to search for information about the specific attributes of the destination. On the other hand,

unfamiliar travelers are likely to utilize personal external information sources to gather information because of their limited processing ability.

### **Summary of Discussion**

Overall, findings of this study indicate that there is a positive relationship between familiarity and expertise, meaning that as familiarity increases expertise increases too. Findings also suggest that while there is a negative relationship between familiarity and utilization of external information search and a positive relationship between familiarity and internal information search, the relationship between expertise and utilization of external information search is positive and the relationship between expertise and internal search is negative. If we examine knowledge as a continuum, placing low familiarity and high expertise at opposite ends of the continuum, we can conclude that travelers who are low in prior product knowledge and who are high in expertise are more likely to utilize external information search than travelers who are high in familiarity and low in expertise. The next section of this chapter will address the implications of the findings discussed above.

## **Implications of the Research Findings of this Study**

### **Managerial Implications**

This study was focused on the influence of travelers' prior product knowledge on their information search behavior. Travelers' prior product knowledge was examined as having two dimensions: familiarity and expertise. Expertise was examined as having five dimensions. Information search was examined as internal and external search. Findings also indicated that

external information search has two-dimensions: external information search from personal sources and destination specific external information search. Since the study was focused on travelers' information search behavior, the managerial implications to be discussed in this section are applicable to the tourism industry.

The most critical implications of the research findings are related to the influence of travelers' prior product knowledge and their information search behavior. The results presented confirm that travelers' prior product knowledge has two components; familiarity and expertise as opposed to the general belief among tourism researchers that travelers' knowledge is a uni-dimensional construct and can be easily measured by counting the number of previous trips taken to the destination in question. Findings further indicate that the influences of familiarity and expertise on travelers' utilization of external and/or internal information sources vary. While highly familiar travelers heavily rely on internal information search to make their vacation decisions, travelers who are expert are likely to search for information from external information sources even though they have more prior product knowledge about vacation destinations than familiar travelers.

These findings are likely to help tourism marketers and managers to understand the information search behaviors of travelers. Understanding the information search behavior of key current and prospective markets can help destination managers and marketers develop target-marketing communications more effectively. Application of basic market segmentation techniques, using travelers' information source utilization patterns as either a segmentation base or descriptor, may enable focused positioning and media selection. Certainly, understanding

external information source utilization can help marketers effectively tailor the promotional mix. In addition, understanding which information sources are complements and which are substitutes can help marketing managers design mutually beneficial cooperative marketing programs and marketing alliances.

The findings of this study revealed that as travelers' familiarity increases they are more likely to make their vacation decisions based on what they know about the destination. Whether a traveler relies solely on internal information search will heavily depend on the perceived adequacy or perceived quality of their existing knowledge. Tourism managers and marketers should remember that familiarity is a measure of subjective knowledge. Subjective knowledge refers to people's perceptions of what or how much they know about a product or product class (Monroe, 1976; Park, Mothersbaugh, and Feick, 1994). Therefore, if a traveler is confident that s/he knows enough about a destination, s/he may not utilize any of the available external information sources. Even if they utilize external information sources, this perceived self-confidence may affect the utilization of external information sources (Brucks, 1985).

Studies show that what people think they know and what they actually know often do not correspond (Park et al. 1994). This finding suggests that destination managers and marketers need to know how much prospective and existing travelers know about their destinations and how accurate their knowledge is. If travelers' perception (image) of the destination is negative due to their subjective knowledge that is not accurate, results may be disastrous. A traveler who has negative perceptions about a destination is not likely to consider visiting that destination. Furthermore, that traveler is not likely to recommend a destination that s/he has negative

perceptions of to his/her friends. Therefore, destination managers and marketers may need to examine travelers' perceptions of the destination to make sure that those perceptions reflect reality. If their examinations indicate that travelers' perception of their destination is negative and does not reflect the true nature of the destination, they may need to take corrective actions. In order to take corrective actions, destinations, first, need to identify what causes those negative perceptions and, then, they need to determine the best way of improving the image.

As shown in Table 5.1, hypotheses related to the relationship between familiarity and two types of external information search (i.e., H2a and H2b) were supported. On the other hand, hypotheses related to expertise and two types of external information searches (i.e., H5a and H5b) were rejected. However, the relationships between expertise and two types of external information searches were found to be significant (Table 5.1). These results indicate that travelers who are low in familiarity or high in expertise are likely to rely on external information sources to make their vacation decision. This finding has two implications. First, since travelers who are low in familiarity are likely to have a hard time examining the information gathered from external sources because of their limited processing ability, they may require a different communication strategy than travelers who are expert. Communication strategies developed for unfamiliar travelers should provide simple information about the overall destination. Those communication materials may also need to include a comparison of the destination against other destinations that target the same market to make it easier for the traveler to digest the information. In other words, communication materials should clearly identify the unique selling propositions of the destination to differentiate the destination from competitors and to make positioning of the destination easier for unfamiliar travelers. Establishing a good and

understandable communication with unfamiliar travelers is critical in convincing them to choose a destination over other destinations because low familiarity is associated with higher perceived importance of, and receptivity to, new information (Park, Gardner and Thukral 1988).

Another method of communicating with unfamiliar travelers is communicating through word of mouth. As stated above, unfamiliar travelers may have a hard time comprehending and evaluating product related information because of their inferior ability to comprehend and evaluate the product related facts (Anderson and Jolson 1980). Because of their limited ability to process the product related information, unfamiliar travelers are more likely to sample the opinions of others such as their friends and family (Brucks 1985; Furse, Punj and Steward 1984), one of the external information sources included in the utilization of external information search from personal sources construct. Since positive word of mouth is the result of satisfaction, special attention is needed to be given to customer satisfaction and complaint handling. Customer satisfaction should be constantly monitored in order to identify the problem areas and to make necessary modifications to enhance customer satisfaction. In addition, customers' complaints should be handled delicately and quickly to ensure satisfaction and positive word of mouth.

Findings of this study indicate that expert travelers also utilize external information sources to gather information about the attributes of the destination even though the hypothesis was that this relationship is negative. Therefore, a separate communication strategy should be developed to reach expert travelers. Communication materials developed for expert travelers should include detailed information about the attributes that are important to the target market.

Attributes that are important to the target market can easily be identified by conducting formal or informal research. In addition, destinations also need to monitor changing consumer needs and wants because changing needs and wants are likely to shift the importance placed on attributes. Destinations can design a survey or conduct a focus group study to find out and monitor what attributes are the most important ones for expert travelers. Managers may also identify the important attributes by just talking to their existing customers. However, destinations need to pay special attention to identification of expert travelers. If destination managers and marketers fail to ask the right questions to the right audience, they may end up making the wrong conclusions and developing a wrong communication strategy.

After the important attributes are identified, destinations will need to communicate them to expert travelers. As shown in Table 5.1, findings of this study indicate that expert travelers are more likely to utilize destination specific external information sources than personal external information sources. That means that destinations need to develop communication materials (i.e., brochures, direct mailing materials, etc) that provide detailed information about the destination and the important attributes. These materials need to be modified as expert travelers' needs and wants change. In addition, tourism marketers need to work closely with city/state travel and national tourism offices to attract more expert travelers because findings indicate that they are likely to get destination specific information from the destination along with city/state and national tourism offices. Therefore, it is important for destination managers to identify the locations where their existing and prospective customers are concentrated. After identifying the target market areas, destinations should provide a large number of brochures and other materials to city/state and national government travel offices that are located in their target market areas.

These brochures should be made specific to the destination and the attributes that are important to expert travelers. Additional information on attractions near the destination should also be included in information packets to make the destination more attractive. To ensure the distribution of these brochures, tourism marketers may need to establish good relationships with city/state and national government travel offices in their target market area.

Destination managers and marketers should understand that different travelers have different types of information needs. While unfamiliar travelers need simple, understandable and overall information, expert travelers need detailed information about the destination and attributes to make their vacation decisions. Destination managers and marketers can use travelers' level of prior product knowledge (familiarity and expertise) as a segmentation tool to develop communication strategies that are most appropriate for each segment.

### **Theoretical Implications**

Results of this study confirmed that travelers' prior product knowledge has two components: familiarity and expertise. Tourism researchers have been examining travelers' prior knowledge as a uni-dimensional construct, most often referred to as destination familiarity or previous trip experiences (Woodside and Ronkainen, 1980) which is operationalized by measuring the number of previous trips taken to a particular destination. Even though the number of previous trips taken to a destination is an important indicator of prior knowledge, it fails to capture travelers' total knowledge about the destination. This single indicator does not account for the knowledge gained about the destination through different sources such as reading guidebooks, talking to friends and relatives, etc. Results of this study imply that prior product

knowledge should be treated as a multi-dimensional construct having two components because both components of travelers' prior product knowledge (familiarity and expertise) determine the type of information search strategies that are likely to be utilized by travelers. This finding extends the information search literature in tourism field because it goes beyond measuring travelers' knowledge by one indicator as a uni-dimensional construct and suggests that travelers' prior product knowledge should be measured as a multi-dimensional construct.

Expertise was found to have five dimensions as suggested by Alba and Hutchinson (1987). This suggests that travelers' knowledge is a more complex phenomenon than previous studies assumed. The confirmation of five dimensions of travelers' expertise further extends the travelers' information search behavior literature in tourism because it suggests that even when travelers' knowledge is considered in a more precise manner, predictions about its effects on travelers' information search are not simple. The two dimensions of knowledge and five sub-dimensions of expertise are likely to make it harder to predict the very complex relationships between familiarity and expertise, and the five sub-dimensions of expertise and their effects on travelers' information search strategies. The results presented in this study indicate that determinants of travelers' information search are more complex than previous studies assumed.

External information search was found to have two dimensions: external information search from personal sources and destination specific external information search. This finding implies that external information search behavior of travelers should be examined as having two dimensions because the travelers' prior product knowledge (familiarity and expertise) does not only influence travelers' utilization of internal and external information sources but it also

influences their utilization of personal and destination specific external information sources in making their vacation decisions.

### **Limitations of the Study**

The limitations of the study are evolved from: 1) the boundaries that were set for the analysis of the proposed theoretical model, 2) the sample population chosen, and 3) testing only the influence of travelers' prior knowledge on their information search behavior. Those limitations will be discussed in this section.

### **Boundaries of the study**

One limitation of the study was that the focus was directed only to leisure travelers and their recent vacation travel experiences. This means that only the information search behavior of leisure travelers who traveled recently to a vacation destination was addressed. If the survey was expanded to include customers who search for information for other purposes (business, convention and meeting, etc.) than to make a vacation destination selection, there could be different levels of influence of familiarity and expertise on utilization of information search strategies. Including other consumers may help us better understand consumers' information search behavior. In addition, information search for only one type of product was examined (i.e., vacation destination). Including other products (i.e., conventions, business trips, accommodations, air travel, etc.) may result in emergence of different relationships.

### **Sample Population Chosen**

Another limitation is that the study was directed at only the residents of Virginia. It is possible that if the study was conducted on the residents of other states and countries, the magnitude and direction of the relationship between travelers' prior knowledge and the information search behavior may be different. Therefore, other states, countries and geographic regions should be explored and additional studies across several traveling populations should be conducted.

A further limitation related to the sample population is that only one member of the traveling party was surveyed and most of respondents were male. Previous studies indicate that female partners are more likely to search for information before making a family vacation decision (Fodness 1992; Gursoy 2000). Therefore, both parties, male and female and, if possible, children should be interviewed separately to get in-depth understanding of the influence of travelers' knowledge on their information search behavior and vacation decision making process.

### **Testing only the Influence of Travelers' Prior Product Knowledge (Expertise and Familiarity) on their Information Search Behavior**

This study examined the influence of two components of travelers' prior product knowledge on their information search behavior. One limitation related to testing only the influences of familiarity and expertise on travelers' information search behavior is that influences of other factors (i.e., involvement, learning, cost of information search, etc.) that are likely to affect travelers' prior product knowledge and their information search behavior were

not examined. Incorporation of those factors may provide a better understanding of travelers' information search behavior and their vacation decision-making process.

### **Implications for Future Research**

There are several key implications that deserve the attention of future research as a result of the findings and limitations of this study. Those implications will be discussed in this section.

One of the limitations of this study was testing only the influence travelers' prior product knowledge on their information search behavior. Even though testing only the influence travelers' prior product knowledge on their information search behavior made it easier to examine the direction and magnitude of the relationships and the interpretation of the findings, the effects of other factors that were identified from the literature were not be examined. In order to examine the complex relationships, future research should incorporate those factors that were not empirically tested in this study.

Another limitation of this study was that the sample consisted of traveling residents of one state, the State of Virginia. Other states and geographic regions should be explored. Therefore, future studies should include traveling parties from other geographic regions and states to improve the understanding of travelers' information search behavior and the factors that are likely to influence travelers' information search behavior. Testing the model and the proposed measurement scales on traveling parties from other states, geographical regions and

various international cultures is necessary to see if the model and the proposed measurement scales hold.

In addition, only one member of the traveling party was surveyed. Future researchers should gather data from both male and female partners and, if possible, from children to better examine and understand the complex relationships proposed in this study.

In this study, familiarity and expertise were examined as separate and discreet constructs. However, there is a probability that they may overlap. Therefore, it may be better to measure these constructs on a continuous scale. Also, in this study, only linear relationship between familiarity and expertise was examined. Future studies should explore the possibilities of relationships other than linear relationships.

### **Conclusions**

This study proposed a comprehensive theoretical model of travelers' information search behavior to better understand the information search strategies utilized by travelers to make their vacation decisions and why those information search strategies are utilized. Even though the whole model was not tested, the proposed model is one of the first steps in understanding travelers' information search behavior. The distinguishing feature of the model is the emphasis given to the travelers' prior product knowledge. The model proposed that travelers' information search activity is driven by travelers' familiarity and expertise.

The results of this study provided support that travelers' prior product knowledge is not a uni-dimensional factor. It has two components: familiarity and expertise. This was accomplished by building on previous research which had demonstrated that travelers' information search behavior could be predicted by their prior product knowledge. Findings also indicated that the magnitude and direction of the effects of travelers' familiarity on their information search behavior are different than the effects of their expertise.

The theoretical basis for the study was developed from the literature. Results of the pretest confirmed the proposed multi-dimensional prior product knowledge construct and indicated that travelers utilize internal and/or external information search before making a vacation decision. Findings further indicated that travelers utilize two different types of external information sources to make their vacation decisions: destination specific external information sources and personal external information sources.

The results of this study indicated that expertise is a function of familiarity and both familiarity and expertise affect travelers' information search behavior. While the effect of familiarity on internal search is positive and on external search is negative, the effect of expertise on internal search is negative and on external search is positive.

The study identified a U-shaped relationship between travelers' prior product knowledge and external information search. At early stages of learning (low familiarity) travelers are likely to rely on external information sources to make their vacation decisions. As their prior product knowledge (familiarity) increases they tend to make their vacation decisions based on what is in

their memory, therefore, reliance on external information sources decrease. However, as they learn more (become experts), they realize that they need more detailed information to make their vacation decision. As a result, they start searching for additional external information to make their vacation decisions.

This study has provided insight into understanding the travelers' information search behavior by developing and empirically testing a travelers' information search behavior model. This study further expands the travelers' information search behavior literature by developing and empirically testing a measurement scale for multi-dimensional travelers' prior product knowledge construct.

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## APPENDIX A

### PRETEST INSTRUMENT

#### Dear Professors:

I would like to ask for your help with the scales I am developing for my dissertation survey.

#### What I would like to know is:

In comparing the items of each construct with all other items of other constructs, do you see any items of any constructs that seem to be **redundant** with other items of other scales?

If you do, please circle or highlight the item (question) and note the number of the item for the other scale. An example, if you feel the item is redundant

#### Item from one of the constructs

21 (1) Life is good.

#### Item from another construct

21. Life is good

I would like to know if there are any items of any of the constructs that you **do not understand** because of the wording of the item.

If there are any, please put a question mark (?) by the item, as shown below

? 1. Life is good

I would like to know whether the items that are proposed to measure each construct provide adequate coverage of the construct. If you think that proposed items do not provide adequate coverage of the construct, please provide a brief explanation on what else is also needed to be included next to the construct name.

When you have made your notations, you can put the survey in my mailbox in the graduate student room. Thank you very much for your help!

Dogan Gursoy

This survey questionnaire is about your vacation decision-making behavior. Please identify the most recent vacation trip you took and write down the name of the destination: \_\_\_\_\_

Did this trip take place within the United States or abroad?

Within the United States/domestic

Abroad

### **Travelers' familiarity with the vacation destination**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

1. Compared to the average person, I am very familiar with the vacation destination I named above.
2. Compared to my friends, I am very familiar with vacation the destination I named above.
3. Compared to people who travel a lot, I am very familiar with the vacation destination I named above.
4. I always try to improve my knowledge about vacation the destination I named above.

### **Travelers Expertise (has five sub-dimensions)**

#### **Automoticity**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

5. I am comfortable doing several things at the same time.
6. If I like a vacation destination, I rarely switch from it just to go somewhere different.
7. I am likely to choose a different vacation destination every time I travel.
8. I always prefer to stay at the same hotel brand whenever I travel.
9. When it comes to vacation decisions, I like doing one thing at a time.

#### **Expertise in utilizing memory**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

10. I can easily recall activities offered in the destination I named above.
11. Whenever I hear the word "vacation" I tend to think of the destination I named above.
12. I can easily compare vacation destinations based on what I know.
13. I still remember what I did during my vacation at the destination I named above.

14. When I close my eyes, I can easily picture the destination I named above.

### **Expertise in building cognitive structures**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

- 15. I can easily differentiate vacation destinations based on the attractions they offer.
- 16. I can easily categorize vacation destinations based on the attractions they offer.
- 17. I can easily list several destinations that are similar to the destination I named above.
- 18. When I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any other attractions) I can easily list several of them.
- 19. I don't know any vacation destination that is similar to the destination I named above.

### **Expertise in analysis**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

- 20. When I make vacation decisions I am likely to rely on other people's opinions (For example, travel agents and/or friends and relatives opinions).
- 21. When I make vacation decisions I am likely to evaluate destination specific facts.
- 22. I do not think that I need to analyze all the available information about a destination to make my vacation decision.
- 23. I think that not all of the available information is useful in choosing a vacation destination.
- 24. I am usually tempted to put more thought into a vacation destination selection decision than it requires.
- 25. More often than not, more thinking about vacation decision just leads to more errors.
- 26. I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.

### **Expertise in elaboration**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

- 27. Before I make a vacation decision, I am likely to simplify all the information I get from information sources (Examples of information sources are: travel agents, guidebooks, etc.).
- 28. Before choose a vacation destination, I am likely to consider all the facts about the destination.

29. If my friends and relatives are having hard time making their vacation decisions they are likely to come to me for help.
30. I am more likely to spend some time thinking of and elaborating on any given information about a possible vacation destination than most other people.
31. I like making vacation decisions that require a lot of thinking and elaboration.

### **Internal information search**

Will be measured on a five-point Likert type totally agree-totally disagree scale (1 = Totally disagree, 5 = Totally agree).

32. I make my travel decisions without gathering any information from any information sources.
33. I knew enough about the destination I named above before I decided to vacation there.
34. Before I start planning my vacation, I am likely to search for information.
35. I make my travel decisions based on what I already know.
36. The idea of relying on what I already know to make my vacation decision does not appeal to me.

### **External information search**

Will be measured on a five-point Likert type Very likely-Very unlikely scale (1 = Very likely, 5 = Very unlikely).

How likely are you to engage in the following before you make a vacation decision?

37. Get information from friends and family.
38. Get information from travel consultants such as travel agents.
39. Get information from destination specific sources.
40. Get information from TV, radio, newspaper and/or magazine advertisements.
41. Get information from magazine reports.
42. Get information from the Internet.
43. Get information from state/city travel offices.
44. Get information from national government tourist offices.

**APPENDIX B  
COVER LETTER**



**College of Human Resources and Education**

**Department of Hospitality and Tourism Management**  
362 Wallace Hall, Blacksburg, Virginia 24061-0429  
(540) 231-5515 Fax: (540) 231-8313

July 27, 2001

Name of the respondent  
Address of the respondent

Dear (name of the respondent)

As part of the requirements for my doctoral degree program at Virginia Tech, I am conducting a study to help understand travelers' information search behavior. The study will aid the travel/tourism industry on how to better serve travelers like you.

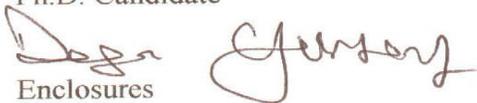
I really need you to help me by participating in this study. All you need to do is fill out the enclosed questionnaire. It should only take approximately 10 minutes or less to complete. Please answer each question as carefully as possible, place it in the enclosed postage-paid, self-addressed envelope and drop it in the mail by August 17, 2001.

Since only a few people from Virginia will be receiving this questionnaire, your participation is of the utmost importance to me in completing my research project and doctoral dissertation.

Thank you for taking part in this study.

Sincerely,

Dogan Gursoy  
Ph.D. Candidate

  
Enclosures

## SURVEY INSTRUMENT

### Vacation Decision-Making Behavior

Please identify the most recent vacation trip you took by writing down the name of the destination (If you visited two or more destinations during your trip, please write down the name of the destination where you spent most of your vacation): \_\_\_\_\_

Please read each statement and indicate your disagreement or agreement with it by marking the appropriate response category. Please check "not applicable" if the statement does not apply to you.

|   | Strongly Disagree        | Disagree                 | Neither Disagree nor Agree | Agree                    | Strongly Agree           | Not Applicable           |
|---|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|--------------------------|
| 1. Compared to the average person, I am very familiar with a wide variety of vacation destinations.                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Compared to my friends, I am very familiar with a wide variety of vacation destinations.                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Compared to people who travel a lot, I am very familiar with a wide variety of vacation destinations.                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. I try to improve my knowledge about vacation destinations.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. I am comfortable doing several things at the same time   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. If I like a vacation destination, I rarely switch from it just to go somewhere different.                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. I am likely to choose a different vacation destination whenever I travel.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. I prefer to stay at the same hotel brand (e.g. Holiday Inn, Marriott, etc.) whenever I travel.                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. When it comes to planning a vacation, I like to make all the decisions in a short period of time                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. I tend to go back to destinations I have visited before because of social contacts with either residents or other visitors. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. I can easily recall activities offered in the destination I named at the beginning of the survey.                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Whenever I hear the word "vacation" I tend to think of the destination I named at the beginning of the survey.              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please read each statement and indicate your disagreement or agreement with it by marking the appropriate response category. Please check "not applicable" if the statement does not apply to you.

|  | Strongly Disagree        | Disagree                            | Neither Disagree nor Agree          | Agree                    | Strongly Agree           | Not Applicable           |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| 13. I can easily compare vacation destinations based on what I know.   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. I still remember what I did during my vacation at the destination I named at the beginning of the survey.  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. When I close my eyes, I can easily picture the destination I named at the beginning of the survey.   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. I have often told others about my experience(s) at this destination.   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. I can easily differentiate vacation destinations based on the attractions offered.   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. If I am given a list of vacation destinations, I can easily group those vacation destinations that offer similar attractions.  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. I can easily list several destinations that are similar to the destination I named at the beginning of the survey.   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. When I think of destinations that have specific attractions (for example, ancient Roman sites, theme parks, racing tracks or any other attractions) I can easily list several of them. | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. I don't know any vacation destination that is similar to the destination I named at the beginning of the survey.   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. When I make vacation decisions I am likely to rely on other people's opinions (For example, travel agents and/or friends and relatives opinions).                                      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. When I make vacation decisions I am likely to evaluate destination specific facts (e.g. number of attractions, dining facilities, etc.).   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. I do not think that I need to analyze all the available information about a destination to make my vacation decision.  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. I do not think that all of the available information is useful in choosing a vacation destination.   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



This section of the survey is designed to help us understand your information search behavior. Please read each statement and indicate how likely you are to engage in the following before you make a vacation decision.

|   | Very Unlikely            | Unlikely                 | Neither Unlikely nor Likely | Likely                   | Very Likely              | Not Applicable           |
|---|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|--------------------------|
| 1. Get information from friends and family.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Get information from travel consultants (e.g., travel agents).   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Get information from destination specific sources (e.g., Convention and Visitors Bureau and/or Chamber of Commerce). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Get information from TV, radio, newspaper and/or magazine advertisements.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Get information from magazine articles and/or reports.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Get information from the Internet.   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Get information from state/city travel offices.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Get information from national government tourist offices.  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**ABOUT YOU (Demographic information)**

Age \_\_\_\_\_

Gender (please circle) M F

Marital Status (please circle): Now married Widowed Divorced Separated Never Married

Including yourself, how many people make up your household? \_\_\_\_\_

How many children do you have? (If you don't have any, please put zero "0") \_\_\_\_\_

If you have any children living in the household, what is the age of the youngest child in the household?

\_\_\_\_\_

What is your annual household income? (Please include all family members) \_\_\_\_\_

How many vacation trips have you taken with in the last 3 years? \_\_\_\_\_

What kind of work do you do? (For example, plumber, homemaker, medical doctor, toy store clerk, waitress, retired) \_\_\_\_\_

Where do you live? (Please circle one) Rural Area Urban Area

**Thank you for completing this questionnaire. Please return it in the self addressed, prepaid envelope to Dogan Gursoy, Department of Hospitality and Tourism Management, Virginia Tech, Blacksburg, VA 24061-0429**

**APPENDIX C  
POSTCARD**

Dear respondent:

A few weeks ago, a vacation decision-making survey was mailed to you. If you have already returned your completed questionnaire, thank you for your participation. If not, please return by September 10, 1998. Your cooperation can help make this study a success.

Sincerely,

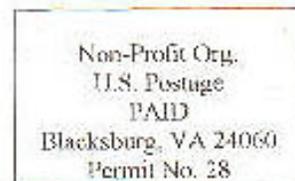


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VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY

Department of Hospitality and Tourism Management  
Blacksburg, VA 24061-0429



Name of the respondent

Address of the respondents

**APPENDIX D**  
**Number of Respondents from each County and City of Virginia**

| <b>Table D.1</b>  |                   |                              |
|---|-------------------|------------------------------|
| <b>County and City Populations and the Number of Respondents Selected from each County and Town</b> |                   |                              |
| <b>County and City Name</b>   | <b>Population</b> | <b>Number of Respondents</b> |
| Accomack County   | 38,305            | 11                           |
| Albemarle County  | 79,236            | 22                           |
| Alleghany County  | 12,926            | 4                            |
| Amelia County   | 11,400            | 3                            |
| Amherst County  | 31,894            | 9                            |
| Appomattox County   | 13,705            | 4                            |
| Arlington County  | 189,453           | 54                           |
| Augusta County  | 65,615            | 19                           |
| Bath County   | 5,048             | 1                            |
| Bedford County  | 60,371            | 17                           |
| Bland County  | 6,871             | 2                            |
| Botetourt County  | 30,496            | 9                            |
| Brunswick County  | 18,419            | 5                            |
| Buchanan County   | 26,978            | 8                            |
| Buckingham County   | 15,623            | 4                            |
| Campbell County   | 51,078            | 14                           |
| Caroline County   | 22,121            | 6                            |
| Carroll County  | 29,245            | 8                            |
| Charles City County   | 6,926             | 2                            |
| Charlotte County  | 12,472            | 4                            |
| Chesterfield County   | 259,903           | 73                           |
| Clarke County   | 12,652            | 4                            |
| Craig County  | 5,091             | 1                            |
| Culpeper County   | 34,262            | 10                           |
| Cumberland County   | 9,017             | 3                            |
| Dickenson County  | 16,395            | 5                            |
| Dinwiddie County  | 24,533            | 7                            |
| Essex County  | 9,989             | 3                            |
| Fairfax County  | 969,749           | 274                          |
| Fauquier County   | 55,139            | 16                           |
| Floyd County  | 13,874            | 4                            |
| Fluvanna County   | 20,047            | 6                            |
| Franklin County   | 47,286            | 13                           |
| Frederick County  | 59,209            | 17                           |
| Giles County  | 16,657            | 5                            |
| Gloucester County   | 34,780            | 10                           |
| Goochland County  | 16,863            | 5                            |
| Grayson County  | 17,917            | 5                            |
| Greene County   | 15,244            | 4                            |
| Greensville County  | 11,560            | 3                            |

**Table D.1  
County and City Populations and the Number of Respondents Selected from each County and Town**

|                       |         |    |
|-----------------------|---------|----|
| Halifax County        | 37,355  | 11 |
| Hanover County        | 86,320  | 24 |
| Henrico County        | 262,300 | 74 |
| Henry County          | 57,930  | 16 |
| Highland County       | 2,536   | 1  |
| Isle of Wight County  | 29,728  | 8  |
| James City County     | 48,102  | 14 |
| King and Queen County | 6,630   | 2  |
| King George County    | 16,803  | 5  |
| King William County   | 13,146  | 4  |
| Lancaster County      | 11,567  | 3  |
| Lee County            | 23,589  | 7  |
| Loudoun County        | 169,599 | 48 |
| Louisa County         | 25,627  | 7  |
| Lunenburg County      | 13,146  | 4  |
| Madison County        | 12,520  | 4  |
| Mathews County        | 9,207   | 3  |
| Mecklenburg County    | 32,380  | 9  |
| Middlesex County      | 9,932   | 3  |
| Montgomery County     | 83,629  | 24 |
| Nelson County         | 14,445  | 4  |
| New Kent County       | 13,462  | 4  |
| Northampton County    | 13,093  | 4  |
| Northumberland County | 12,259  | 3  |
| Nottoway County       | 15,725  | 4  |
| Orange County         | 25,881  | 7  |
| Page County           | 23,177  | 7  |
| Patrick County        | 19,407  | 5  |
| Pittsylvania County   | 61,745  | 17 |
| Powhatan County       | 22,377  | 6  |
| Prince Edward County  | 19,720  | 6  |
| Prince George County  | 33,047  | 9  |
| Prince William County | 280,813 | 79 |
| Pulaski County        | 35,127  | 10 |
| Rappahannock County   | 6,983   | 2  |
| Richmond County       | 8,809   | 2  |
| Roanoke County        | 85,778  | 24 |
| Rockbridge County     | 20,808  | 6  |
| Rockingham County     | 67,725  | 19 |
| Russell County        | 30,308  | 9  |
| Scott County          | 23,403  | 7  |
| Shenandoah County     | 35,075  | 10 |
| Smyth County          | 33,081  | 9  |
| Southampton County    | 17,482  | 5  |

**Table D.1  
County and City Populations and the Number of Respondents Selected from each County and Town**

|                       |         |    |
|-----------------------|---------|----|
| Spotsylvania County   | 90,395  | 26 |
| Stafford County       | 92,446  | 26 |
| Surry County          | 6,829   | 2  |
| Sussex County         | 12,504  | 4  |
| Tazewell County       | 44,598  | 13 |
| Warren County         | 31,584  | 9  |
| Washington County     | 51,103  | 14 |
| Westmoreland County   | 16,718  | 5  |
| Wise County           | 40,123  | 11 |
| Wythe County          | 27,599  | 8  |
| York County           | 56,297  | 16 |
| Alexandria city       | 128,283 | 35 |
| Bedford city          | 6,299   | 2  |
| Bristol city          | 17,367  | 5  |
| Buena Vista city      | 6,349   | 2  |
| Charlottesville city  | 45,049  | 13 |
| Chesapeake city       | 199,184 | 56 |
| Clifton Forge city    | 4,289   | 1  |
| Colonial Heights city | 16,897  | 5  |
| Covington city        | 6,303   | 2  |
| Danville city         | 48,411  | 14 |
| Emporia city          | 5,665   | 2  |
| Fairfax city          | 21,498  | 6  |
| Falls Church city     | 10,377  | 3  |
| Franklin city         | 8,346   | 2  |
| Fredericksburg city   | 19,279  | 5  |
| Galax city            | 6,837   | 2  |
| Hampton city          | 146,437 | 41 |
| Harrisonburg city     | 40,468  | 11 |
| Hopewell city         | 22,354  | 6  |
| Lexington city        | 6,867   | 2  |
| Lynchburg city        | 65,269  | 18 |
| Manassas city         | 35,135  | 10 |
| Manassas Park city    | 10,290  | 3  |
| Martinsville city     | 15,416  | 4  |
| Newport News city     | 180,150 | 51 |
| Norfolk city          | 234,403 | 66 |
| Norton city           | 3,904   | 1  |
| Petersburg city       | 33,740  | 10 |
| Poquoson city         | 11,566  | 3  |
| Portsmouth city       | 100,565 | 28 |
| Radford city          | 15,859  | 4  |
| Richmond city         | 197,790 | 56 |
| Roanoke city          | 94,911  | 27 |

| <b>Table D.1</b>  |                  |             |
|---|------------------|-------------|
| <b>County and City Populations and the Number of Respondents Selected from each County and Town</b> |                  |             |
| Salem city  | 24,747           | 7           |
| Staunton city   | 23,853           | 7           |
| Suffolk city  | 63,677           | 18          |
| Virginia Beach city   | 425,257          | 119         |
| Waynesboro city   | 19,520           | 6           |
| Williamsburg city   | 11,998           | 3           |
| Winchester city   | 23,585           | 7           |
| <b>TOTAL</b>  | <b>7,078,515</b> | <b>2000</b> |

## APPENDIX E

### Respondent Profile Data

| <b>Table E.1<br/>Age of Respondents</b> |      |       |       |       |       |       |      |
|---|------|-------|-------|-------|-------|-------|------|
| Mean = 48.75<br>n = 463                 |      |       |       |       |       |       |      |
| Age                                     | <25  | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75+  |
| N                                       | 16   | 56    | 112   | 124   | 85    | 56    | 14   |
| %                                       | 3.45 | 12.09 | 24.19 | 26.78 | 18.36 | 12.10 | 1.02 |

| <b>Table E.2<br/>Income of Respondents</b> |           |                      |                      |                      |                      |             |
|--|-----------|----------------------|----------------------|----------------------|----------------------|-------------|
| Mean = 86.524<br>n = 352                   |           |                      |                      |                      |                      |             |
| Income                                     | <\$20,000 | \$20,000 -<br>39,999 | \$40,000 –<br>59,999 | \$60,000 –<br>79,999 | \$80,000 –<br>99,999 | \$100,000 + |
| N  | 5         | 38                   | 68                   | 82                   | 46                   | 113         |
| %  | 1.4       | 10.80                | 19.32                | 23.30                | 13.07                | 32.10       |

| <b>Table E.3<br/>Gender of Respondents (n = 466)</b> |       |        |
|--|-------|--------|
| Gender   | Male  | Female |
| n  | 281   | 185    |
| %  | 60.30 | 39.70  |

| <b>Table E.4</b>                               |             |         |          |           |               |
|--|-------------|---------|----------|-----------|---------------|
| <b>Marital Status of Respondents (n = 467)</b> |             |         |          |           |               |
| Marital Status                                 | Now Married | Widowed | Divorced | Separated | Never Married |
| n  | 375         | 19      | 29       | 8         | 36            |
| %  | 80.30       | 4.07    | 6.20     | 1.71      | 7.71          |

| <b>Table E.5</b>                                   |       |       |       |       |      |      |      |
|--|-------|-------|-------|-------|------|------|------|
| <b>Number of Children of Respondents (n = 470)</b> |       |       |       |       |      |      |      |
| Number of Children                                 | 0     | 1     | 2     | 3     | 4    | 5    | 6    |
| n  | 97    | 61    | 178   | 83    | 38   | 8    | 5    |
| %  | 20.64 | 12.98 | 37.87 | 17.66 | 8.09 | 1.70 | 1.06 |

## CURRICULUM VITAE

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**EDUCATION:** **Virginia Polytechnic Institute and State University, Blacksburg, V.A.**  
*Ph.D.*  
Major: Hospitality and Tourism Management  
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Graduated: December, 2001

**University of New Haven, West Haven, C.T.**  
*Master of Science*  
Major: Hospitality and Tourism Management  
Graduated: December, 1996

***Cukurova University, Mersin, Turkey***

School of Business and Economic  
Department of Tourism Administration and Hotel Management  
Major: Tourism Administration and Hotel Management  
Graduated: May 1992

### WORK EXPERIENCE:

|                                |   |
|--------------------------------|---|
| <b>August 2001 – Present</b>   | <b>Assistant Professor</b><br><b>Washington State University</b><br><b>College of Business and Economics</b><br><b>Hotel and Restaurant Administration Program</b>  |
| <b>August 2000 – May 2001</b>  | <b>Instructor of Hospitality Marketing Management</b><br><br><b>Graduate Teaching Assistant for Travel and Tourism Management</b><br>Department of Hospitality and Tourism management<br>Virginia Polytechnic Institute and State University,<br>Blacksburg, V.A. |
| <b>January 2000 – May 2000</b> | <b>Graduate Teaching Assistant for Hospitality Marketing Management</b>   |

**Graduate Teaching Assistant for Travel and Tourism Management**

Department of Hospitality and Tourism management  
Virginia Polytechnic Institute and State University,  
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**August 1999 – December 1999**

**Instructor of Hospitality Marketing Management**

Department of Hospitality and Tourism management  
Virginia Polytechnic Institute and State University,  
Blacksburg, V.A.

**February 1997-August 1997:**

**S&K Travel, Tour Operator and Yachting Agency, Bodrum, Turkey.**

*Area Manager:*

- Responsible manager of Bodrum operation
- Signing contracts with hotels and yachting companies
- Communication and co-operation with other area managers,
- Report to president directly.

**February 1994-August 1994:**

**Tourism Transport Tours Ltd., Istanbul, Turkey.**

*Area Manager:*

- Responsible manager of Cesme operation,
- Communication and co-operation with other area managers,
- Report to president directly.

**November 1993-February 1994**

**Tourism Transport Tours Ltd., Bodrum, Turkey.**

*Operation Supervisor:*

- Supervisor of four employees,
- Forecast demand and supply for tours and trips,
- Development of new tours and trips,
- Pricing of tours and trips,
- Supervise airport operations, tours and trips,
- Report to area manager.

**May 1992-November 1993**

**Tourism Transport Tours Ltd., Bodrum, Turkey.**

*Licensed Professional Tourist Guide:*

- Guiding during the tours and trips,

- Dealing with costumers and their problems,
- Report to operation supervisor.

## RESEARCH INTERESTS

Information search behavior of travelers, loyalty, family life cycle and decision-making, host community reactions towards tourism, complaint behavior and tourism impacts.

## PUBLICATIONS IN REFEERED JOURNALS

Gavcar, E and Gursoy, D. (In Press) An Examination of Destination - originated (pull) Factors. *Tourism Analysis*.

Gursoy, D., Jurowski, C., and Uysal, M. (2002). Resident's Attitudes: A Structural Modeling Approach. *Annals of Tourism Research*, 29 (1), 79-105.

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Yoon, Y., Chen, J. S., and Gursoy, D. (1999). An investigation of the relationship between tourism impacts and host communities' characteristics. *Anatolia; An International Journal of Tourism and Hospitality Research*, 10(1), 29-44.

## WORK-IN-PROGRESS

Gursoy, D., McCleary, K. W., and Lepsito, L. R. Segmenting dissatisfied restaurant customers based on their complaining response styles. *International Journal of Hospitality Management*. (Submitted)

Gursoy, D., Uysal, M. and McCleary, K. W. Prior Product Knowledge and its Influence on the Traveler's Information search Behavior. *Journal of Travel Research* (Submitted).

Kim, K., Gursoy, D. and Uysal, M. Socio-economic impacts of festivals and events: Organizers perception. *Journal of Hospitality and Tourism Research*. (Submitted).

Umbreit, T. and Gursoy D. Development and validation of a students' teachers evaluation scale.

Neal, J. D. and Gursoy. Travelers' satisfaction with hospitality and tourism services.

## PRESENTATIONS AND PAPERS IN PROCEEDINGS

Gursoy, D. (2001) Panel speaker on The Positive and Negative Impacts of Travel/Tourism on the Quality of Life in Third World and Developing Nations—Measurement Issues chaired by *Janet Neal*. Fourth International Society of Quality of Life Studies (ISQOLS) Conference. Washington, DC.

Kim, K. and Gursoy, D. (2002). Perceived Socio-Economic Impacts of Festivals Among Organizers. *Advances in Hospitality and Tourism Research: Vol. 7. Proceedings of the Seventh Annual Graduate Education and Graduate Students Research Conference in Hospitality and Tourism*. Houston, TX.

Gursoy, D. (2001) The effects of gaming on communities' quality of life. Fourth International Society of Quality of Life Studies (ISQOLS) Conference. Washington, DC.

Neal, J. D. and Gursoy, D. (2001). An examination of how age impacts the effects of tourism services on the travelers' quality of life. Fourth International Society of Quality of Life Studies (ISQOLS) Conference. Washington, DC.

Gursoy, D and Hahm, S. P. (2001). The Influence of Couple life Cycle (CLC) on Family Vacation Decision-Making Process. In D. F. Cannon (Ed.) *Advances in Hospitality and Tourism Research: Vol. 6. Proceedings of the Sixth Annual Graduate Education and Graduate Students Research Conference in Hospitality and Tourism*, (pp. 179-183). Atlanta, GA: Georgia State University.

Hahm, S. P. and Gursoy D. (2001). Co-Branding Strategy in Foodservice Industry. In D. F. Cannon (Ed.) *Advances in Hospitality and Tourism Research: Vol. 6. Proceedings of*

*the Sixth Annual Graduate Education and Graduate Students Research Conference in Hospitality and Tourism*, (pp. 179-183). Atlanta, GA: Georgia State University.

Gursoy, D. (2000). An examination of the influence of prior product knowledge and motivations on the traveler's utilization of external information sources. In C. C. B. Mok and A. L. DeFranco (Eds.) *Advances in Hospitality and Tourism Research: Vol. 5. Proceedings of the Fifth Annual Graduate Education and Graduate Students Research Conference in Hospitality and Tourism*, (pp. 1-10). Houston, TX: Hilton University of Houston. (Refereed Proceedings) (Received the Haworth Hospitality Press Award for best conference paper.)

Gursoy, D., McCleary, K. W., and Lepsito, L. R. (2000). Segmenting dissatisfied restaurant customers based on their complaining response styles. In M. Dallas (Ed.) *New Beginnings: International CHRIE 2000 Convention Proceedings*, (pp. 44-49). (Refereed Proceedings) (Received one of the best papers award).

Gursoy, D., Chen, J. S., and Yoon, Y. (2000). Using structural equation modeling to assess the affects of tourism impacts factors and local residents support for tourism development. In N. P. Nickerson, R. N. Moisey, and K. L. Andereck (Eds.) *31<sup>st</sup> Annual Conference Proceedings: Travel and Tourism Research Association – Lights, Camera, Action: Spotlight on Tourism in the New Millenium* (pp. 243-250). Boise Idaho: Travel and Tourism Research Association. (Refereed Proceedings)

Chen, J. S., and Gursoy, D. (2000). Information usage between first-time and repeat international travelers. *New Beginnings: International CHRIE 2000 Convention Proceedings*, (p. 27). (Refereed Proceedings)

Gursoy, D. (2000). Modeling host community residents' attitudes toward tourism using LISREL. In *16<sup>th</sup> Annual Research Symposium of Virginia Tech: Bridging Research Boundaries* (p. 51). Blacksburg, VA: Virginia Tech.

Gursoy, D., and Uysal, M. (2000). A Structural modeling of resident's attitudes towards tourism. *The 2000 Southeastern Recreation Research Conference*. Charleston, SC. (Refereed Presentation)

Tuna, O., and Gursoy, D. (1998). Bir turizm aktivitesi olarak sportif amacli dalislar: Izmir'de dalis yapan kisilerin demografik ve kisilik ozellikleri uzerine ampirik bir arastirma [Diving as a tourism activity: An examination of socio-demographics and psychological factors that influence divers in Izmir. In *1. Ulusal Deniz Turizm Sempozyumu* (pp. 140-149). Izmir: Dokuz Eylul Universitesi. (Refereed Proceedings)

## **ACADEMIC SERVICE**

Boing Travel Grants Committee. Washington State University, College of Business and Economics, International Business Institute 2001 – present.

Reviewer for tenth World Business Congress of International Management Development Association (IMDA), Zagreb, Croatia, July 4-8, 2001.

## **THESIS**

Master thesis on "The Impact of Family Life Cycle on Vacation Decision Making Process"

## **HONORS, AWARDS AND ACTIVITIES:**

Awarded the Haworth Hospitality Press Award for best conference paper, Fifth Annual Graduate Education and Graduate Student Research Conference. January 2000

Awarded one of the best papers award, New Beginnings: International CHRIE 2000 Convention. July 2000.

Appointed as a Graduate Fellow for the academic year 1995-1996 by the University of New Haven graduate School.

Awarded Food Sanitation and Safety Management (SERVESAFE) Certificate by National Restaurant Association the Educational Foundation, USA.

Awarded a scholarship from Turkish Government for graduate study in the United States. August 1994.

Awarded Professional Tourist Guide License and Certificate by the Ministry of Tourism, Ankara, Turkey. January, 1991.

Awarded Travel Agency Manager License and Certificate by the Ministry of Tourism, Ankara, Turkey. January, 1993

Awarded Travel Agent License and Certificate by the Ministry of Tourism, Turkey. January, 1991.

## **MEMBERSHIPS (Current)**

The International Society of Quality of Life Studies (ISQOLS)

Council on Hotel, Restaurant and Institutional Education (CHRIE)

Travel and Tourism Research Association (TTRA)

Turkish Professional Tourist Guides Association, Ankara, Turkey