Tourist Information Search and Acquisition: An Extended Framework

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ABSTRACT

Traditional research on tourist information search has focused on pre-purchase information search and planning search, which is closely related to travel decision making. However, viewing information and information acquisition through a broader perspective, tourist information search and acquisition encompasses our everyday life, and before, during and after every trip. After reviewing the concept of information and information search in different research areas, the authors argue that traditional research has omitted several important elements which influence tourist decision making and travel experience, including ongoing information search, en-route information search and information acquisition, and after-trip information search. This paper proposes an extended framework of tourist information search, which includes five phases: ongoing search, pre-purchase search, planning search, en-route search and after-trip search. Ongoing search built our travel knowledge, experience, images related with destination, and also our personality and preferences related with travel; pre-purchase search is the destination choice search, in most part a decision making process; planning search is setting up the details of the trip; en-route search includes both information search for lodging, stop, or visiting decision and information acquisition through sightseeing which can change the knowledge and image about the destination; after-trip search implies that travelers may continue pay attention to the trip-related information even after the trip finished. These different information searches may involve different information needs and different information sources. Based on the understanding of the extended tourist information search, it is important for tourism enterprises and organizations to pay attention to the entire information environment the travelers or potential travelers may encounter on both everyday basis and before, during, and after a trip.
INTRODUCTION

The development of information technology has changed the business world and our everyday lives (Hoffman & Novak, 1996). In tourism, more and more tourism enterprises and organizations are adopting information technology to communicate with their customers through various channels. Besides traditional call centers, mass media, tourist brochures, and travel consultants, they have built web sites, email-lists, newsgroups, and online community in order to market their products and build relationship with their customers. Besides, tourists also acquire travel information through non-marketer-dominated information sources, such as personal experience and family and friends (Snepenger and Snepenger, 1993). The understanding of tourist information search behavior is crucial in designing information technology in tourism. However, even though some research has already been done in the area of tourist information search, it seems little effort has been made to apply the results of this research to the design of information technology. One possible reason may be that this research has intrinsic limitations in that they can not be applied in real world situations, therefore little economic gain can be foreseen from such application. This paper is focuses on an extended framework on tourist information search behavior, which includes those aspects traditionally ignored by researchers in consumer behavior and tourism. The authors hope the extended framework can reveal some “hidden” elements in tourist information search and travel decision-making and give some clues on the direction for future research.

THEORETICAL FOUNDATIONS

Even though conversion study has already been used to assess the effectiveness of various marketing channels, and plenty of research has been done regarding tourist information search behavior (see Snepenger & Snepenger, 1993; Fonest & Murray, 1998 for reviews of literature), they are either descriptive approaches (focusing on the relationship between demographic characteristics or trip-related characteristics with information search direction or quantity), or they follow the legacy in consumer behavior
which is mainly focused on one type of information search in decision making leading to destination decision choice). However, information search behavior is rather complex and involves many facets. Various researchers in different areas have been studying information search, information seeking and information acquisition from numerous perspectives, including consumer behavior, cognitive psychology, communication research, library and information science, and computer science. They approach information search through different perspectives, and all those can provide us some insights in this phenomenon called information search behavior. An investigation of those different perspectives of information search is necessary to clarify the nature of tourist information search behavior through different dimensions. Viewing tourist information search in the entire information environment we are experience everyday can disclose the ignored elements, which may be essential in determining the effectiveness of marketing and communication in the tourism area.

The Concept of Information

In the electronic communication area, Shannon (1948) argued that information is something reducing uncertainty. Through information exchange, the information receiver can increase their knowledge of the world on the information sender’s side. Social psychologists share a similar view of information, but instead they approach the nature of information through the consciousness of human being. Information is defined as “anything that produces changes in consciousness of the human being—a perception, a sensation, an emotion, a memory, a thought” (Kubey & Csikszentmihalyi, 1990, p. 2). Every bit of information produced by the environment including light, odor, or touch can contribute to a person’s consciousness. Marchionini, an information scientist, argued that information is one of the fundamental needs of a human being. Information exchange between human beings and their environment is indispensable for surviving as well as enjoying life (Marchionini, 1995). Similarly, organizational communication researchers stated that information is crucial for the survival and development of an organization (Huber & Daft, 1987). Another information scientist, Buckland (1991), defined information at three levels: information as process in communication sense, information
as knowledge in terms of reducing uncertainty, and information as thing as represented by various information sources. Liang, a researcher in Management Information System area, distinguished four types of entities (1994): data, information, knowledge and wisdom. Each entity can be transformed into the next level by information processing. In this process the entropy of the entity is reduced and accordingly the entity can be more systematically organized and analyzed.

We can see different researchers define information in different levels depending on the objects he/she is interested in. In tourism area, information is not necessarily defined at the higher level in terms of information about different alternatives. It may conceal many underlying important determinants of travelers’ behavior. Viewing information as something continuously changing the consciousness of travelers can give us a more in-depth understanding in the tourists’ decision making and travel behavior.

**The Concept of Information Search**

In the consumer behavior literature, information search is based on the information processing theory (Bettman, 1979), and directly linked with decision making process, accordingly this research can provide direct inferences for the marketing and advertising strategy of business sectors. The consumer behavior researchers claimed that information search behavior is the prerequisite of decision making. In order to evaluate different alternatives, the decision maker needs to know the attributes of each alternative. When such information is not available, the decision maker needs to go through an information search process. The information search process can be either an internal information search, which denotes information retrieval from long-term memory, or an external information search, which indicates the active information searching through outside information sources (Engel, Blackwell, & Miniard, 1995). A lot of research has been done regarding information search (in terms of the number of alternatives evaluated, and information sources used) with product involvement, prior knowledge of product or product category, and presentation format of information (Newman, 1977; Kiel & Layton, 1981; Beatty & Smith, 1987; Srinivasan & Ratchford, 1991; Schmidt & Spreng, 1996; Moorthy, Ratchford, & Talukdar, 1997). However, in order to maximize the
utilities of decision making as well as reduce cognitive effort in decision making, decision makers are adopting different simpler heuristics to simplify information search and alternative evaluation process (Payne, Bettman, & Johnson, 1993). The information search process is changing along with these heuristics as well. Bloch argued that consumers are searching information not only for making a better decision, but also for aggregating information for further use in decision making, or for the enjoyment of information search itself (Bloch, Sherrell, & Ridgway, 1986). This line of research interest is in accordance with the recent research on hedonic aspect of consumption by Hirschman and Holbrook (1982). In general, the experiential and non-functional aspect of information search can be seen as the turning back of the main stream of information search which is targeted at decision making.

Library and information science studies information needs in a broader perspective. They use the term “information seeking” more often than “information search”, which represents less goal-oriented information behavior. They mainly distinguish information seeking into work-related information searching and everyday information seeking. A lot of research has been done regarding information needs and information search behavior of different professionals. In order to clarify the origin of information search, Dervin (1983) proposed sense-making theory, which includes a set of philosophical assumptions, methodologies, data collection methods, and can be used to explain people’s information seeking behavior. She argued that people seek information when they bump into obstacles, and when there appears a gap between the world in their understanding and the problem they are facing. Information seeking is the way to bridge the gap in order to move forward.

Along with the development of the Internet and World Wide Web, computer science is mainly dealing with integrating heterogeneous information sources together. There are more and more structured and semi-structured information sources on the Internet. In order to take advantage of huge quantity of information, computer scientists are focusing on developing web indexes, computer agents, and information intermediaries in order to integrate and search through different information sources.
In the tourism area, the research on tourist information search has mainly focused on uses of various information sources, including welcome centers/visitor information centers (Gitelson & Perdue, 1987; Fesenmaier, Vogt & Stewart, 1993; Fesenmaier, 1994), information kiosks (Kingley & Fesenmaier, 1995), and promotional materials (Etzel & Wahlers, 1985). Some articles discuss the overall use of information sources (Snepenger, Meged, Snelling & Worrall, 1990; Uysal, McDonald & Reid, 1990), the relationship between inquiry of information and travel decision-making and travel planning (Gitelson & Crompton, 1983; Schul & Crompton, 1983), and economic impacts of welcome centers (Fesenmaier & Vogt, 1993). Recently, Fodness and Murray (1998, 1999) investigated types of information strategies in terms of various source uses. Following the attention on hedonic consumption research (Hirschman & Holbrook, 1982; Holbrook & Hirschman, 1982), Vogt and Fesenmaier (1998) identified several information needs including sign, hedonic, aesthetic and innovation needs. Perdue (1993), Fodness and Murray (1998, 1999) discussed the existence of ongoing information search in recreation and tourism domain, in which they defined ongoing search as the subscription to certain recreation magazines. In general, the research on tourist information search is mainly following the consumer behavior literature, which is focused on information search related to decision making.

**CONCEPTUAL FRAMEWORK**

Information search is more than just for pre-purchase alternative evaluation. Product knowledge, consumer’s personality and preferences related with product choices are all determinant elements in decision making, and they are all results of information acquisition and active information seeking from an ongoing accumulative process. Information acquisition and processing encompasses our everyday life, which includes a large quantity of travel related information. The images, knowledge and experiences about travel in general and tourism destinations accumulated through our everyday life may have more influence on our decision choices and our enjoyment of travel than pre-
purchase information search. From previous discussion, a few points emerge which have been ignored by researchers in the tourist information search area:

1. **Tourist information search is a part of information seeking and information acquisition in our everyday life. It is impossible to distinguish information search for the travel product from everyday information acquisition.**

Our knowledge about travel destinations comes from a variety of information channels we encounter everyday, for example, textbooks from our high schools, movies we saw, TV news and commercials, talking with neighbors and colleagues, our prior travel experiences, which Bloch (1986) named ongoing search. Information searching implies active information seeking, which is only one part of information acquisition process, which also includes passive information acquisition. All this information acquisition will influence our knowledge and image regarding travel destinations. For tourism destinations, enterprises and organizations, we should understand that image change of a destination is very difficult merely through short exposure to marketing information made available by those tourism organizations, since existing images are unlikely to change in a short period of time. On the contrary, we need to pay more attention to the entire information environment we are creating in which our potential customers are exposed; including the destination as it appears in the news, the images of the local economy, government and local culture. We should view all these aspect as a whole instead of marketing one aspect of it. A piece of negative news (grave crime, natural disaster, or scandal) regarding this destination on TV will destroy the images on which the Destination Marketing Organizations (DMO) have spent millions of dollars. On the contrary, to be a place where a famous movie was shot will possibly enhance the image of this destination dramatically.

2. **Pre-purchase tourist information search is only one phase in the travel process, which represented by evaluation of different alternatives. Ongoing search and planning search are other phases of tourist information search.**
Pre-purchase search is focused on evaluation of different alternatives. In this phase, different destination choices will be considered and evaluated. However, the travel decision is composed of a hierarchy of decision choices (Jeng, 1999), including numerous negotiations and compromises. Destination choice may be the most important decision since it will impose the prevalent constraint on other decision choices, such as transportation, lodging and attractions. As previously discussed, before we have a clear goal for traveling and go into destination choice process, we also go through ongoing search, in which we are either actively or involuntarily searching for information for entertainment or knowledge building purposes. Many customers don’t have a process of pre-purchase search; they make their choice based on their knowledge and images built through their ongoing search. After the destination choice has been made, our information search will be focused on planning every aspect of our trip. The number of alternatives will be decreased dramatically since we are confined by our destination choice. Even though all these information search phases have different characteristics, they are all parts of the traveling information search also part of the entire travel experience. For marketing purpose, assuming every tourist information searcher is in the process of alternative evaluation is a misunderstanding and the marketing effort will not achieve the best effectiveness.

3. *The travel decision process is a complex and ongoing process that is also happening during the trip, in which every travel related piece of information is influencing the on-route travel decisions concerning attractions, transportation, shopping and other decisions. The traveling process can also be seen as information acquisition process which can change the image and knowledge about travel destinations and consequently can influence following decision choice. Furthermore, after the trip finishes, the traveler may continue to pay attention to the trip related information.*

Research on en-route tourist information search is mainly focused on the use of highway visitor centers (Gitelson & Perdue, 1987; Fesenmaier, Vogt & Stewart, 1993; Fesenmaier, 1994). However, every information piece the travelers come across during their trip may influence their following travel decisions. One example is the signs for rest
area or motels along the highway, which may influence the stop or lodging decision. Travel experience is also important as one type of information acquisition process which has the potential to change images, knowledge, and involvement with travel destination, and therefore influence the subsequent travel decision process. For example, having had a bad experience in one attraction may shorten the length of travel in one area. Furthermore, after the trip the traveler may continue to pay attention to the information related to the trip. He/she may check out the web site about visited destination since attachment may already be constructed.

Based on previous analysis, we can propose an extended framework on tourist information search behavior, which includes ongoing information search; pre-destination choice search, en-route search, and after-trip search (see Figure 1).

Exposed in the travel information environment, the traveler will go through different phases of information search, from ongoing search, pre-purchase search, planning search, en-route search to after-trip search, separated by different decision phases (need recognition or destination choice) or action phases (starting of the trip or end of the trip).
Pre-purchase search and planning search are most widely researched even though the researchers didn’t name them by those labels. The travelers have different needs, and use different information sources in different phases of their information search. We can use a dichotomy of information needs in order to investigate the different information needs in different phases of information search: functional need versus hedonic needs (which can include those hedonic, sign, aesthetic and innovative needs by Vogt and Fesenmaier 1998). Also regarding one trip the travelers may not go through every phase. Some travelers choose destinations merely based on their prior experience and knowledge about destination without pre-purchase information search process, and some experienced travelers will not go through travel planning process and instead they will totally depend on en-route information search. The followings are short explanation of those information search phases.

1. Ongoing Information Search
In ongoing information search, on one hand, the travelers accumulate knowledge, construct images, and accrue experience about travel and destinations through everyday life; on the other hand, their personalities, preferences, and tastes in general and toward traveling in specific are being formed. From childhood, they begin this process through traveling with their parents, communicating with their friends, being influenced by mass media (TV, movies, magazines, radios, and newspapers), and building knowledge based and personality through receiving education. Compared with other phases of information search, the time frame is quite lengthy and on an on-going basis. Accordingly, the images of destinations being built are especially solid and can not be easily changed. During this process, the non-functional needs are predominant. They either actively search information or passively acquire travel related information mainly for enjoyment or other purposes but unlikely for travel decision making. The information sources used are mainly personal and social communication, mass media, and education.

2. Pre-purchase Information Search
This type of information search attracted major attention from tourism research area. A lot of researchers have investigated how people make different destination choices, the
decision rules and the information sources used. The search phase starts with need recognition, which can be any cues which trigger the desire for traveling, for example, a vacation in the future, the coming of a sabbatical, an outcry from the kid, a message from a friend living in another city, or invitation form a family member. In this phase, functional need of information search is most prominent, since the following decisions on transportation, travel stops, lodging, will be based on the decision of destination. They may use various information sources for making a decision on where to travel, for example, family members and friends, web sites, 1-800 phone number from tourism destinations, travel magazines, or travel agencies. Even in prepurchase information search phase, travelers may have different information search needs in making the destination decision besides functional needs, for example, sign need, hedonic need, or aesthetic need (Vogt & Fesenmaier, 1998). On the other hand, people may not go through external pre-purchase information search process at all. A lot of research have shown that sometimes people make purchase decision just from internal information search (see Moorthy, Ratchford, & Talukdar, 1997). The importance of prepurchase information search is reflected by the facts that it leads to purchase decision.

3. Planning Information Search

After destination decision has been made, people will search information for planning the actual trip. It involves every aspects of a trip, from travel partners, transportation, travel stops, lodging, to different attractions to visit, which form a hierarchy of travel facets (Jeng, 1999). It should be pointed out that different travelers may have different degree of travel planning process. Some travelers will go on a trip without any planning process once the destination decision has been made; some travelers may make travel plans including every detail. In the planning search process, the traveler will have both hedonic needs and functional needs, since travel planning process is one aspect of enjoyment of a trip. The information sources used may include talking with family members, relatives an friends, the Internet, travel brochures, 1-800 phone number from DMOs, travel magazines and travel agencies.

4. En-route Information Search
Once travelers go on the road, they are still going through en-route information search and information acquisition process. Highway visitor center is one type of en-route information source which has been widely paid attention (Gitelson & Perdue, 1987; Fesenmaier, Vogt & Stewart, 1993; Fesenmaier, 1994). Besides, travelers are also obtaining travel related information through other different information sources through passive information acquisition, for example, commercial signs on the sides of highways, radio in the car, commercial materials on the flights or interaction with local residents. Most of these sources were ignored in the previous research on travel information search. These resources are depending on certain situation and existing technology. Radio may be the only information source in the past when the travelers were driving, but now cell phones are available even including GPS system and Internet access. Furthermore, the travel experience itself may be used as one information source in the following travel decisions. These information search and information acquisition can be functional or hedonic or both depending different context and situation. Checking out the departing time is totally functional while talking with local residents or acquiring information through sightseeing maybe most hedonic.

5. After-trip Information Search
Traveler’s information search will not end after they finished the trip and returned home. They continually pay attention to information about this destination through various information sources. The traveler may have built an attachment with the destination after visiting that place. They will pay attention on information about that destination on TV, on magazines or while talking to relatives and friends. In this process, the hedonic needs are predominant since no decision making task is imminent. The information sources they will use may include personal communication, mass media, and the Internet.

In general, travelers will search for information during these phases, in which they will use different information sources to fulfill their different needs. Their different proportion of the dichotomy of information needs can be roughly depicted in Figure 2.

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<th>Phases of Search</th>
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However, travelers may not go through every information search stage on every trip. For repeat visiting (Figure 1), travelers will not go through pre-purchase information search and destination choice again, instead they will go directly into planning information search or for experienced travelers, they may even start the trip right away without any prior trip planning.

**DISCUSSIONS AND FUTURE RESEARCH**

This article provided an extended framework on tourist information search. In different information search phases discussed above, ongoing information search, en-route information search and after-trip information search have not been satisfactorily understood. Empirical evidence is needed to validate those assumptions. Because of the limitations of traditional survey research, which relies on recall and self-report of the subjects and can hardly capture the detailed information acquisition before, during and after the trip, case study, ethnography or other qualitative research method may be more appropriate in exploring those information search phases.

Based on the overall understanding of travelers’ information search and information acquisition, the next question to be asked is how we can design a better information environment to fulfill their needs. Previously we mainly focus on prepurchase information search and planning search to provide the travelers with accurate travel information and promote the destination images. For a broad view of information environment, we should pay attention to every information piece the travelers may come upon on both a daily basis and during the trip. From DMO’s perspective, it requires us to focus on the overall image and service, not merely on the marketing efforts targeting at
one trip. We should every aspect of the operation of the tourism destination as one piece of marketing effort and they all have the potential to influence even determine the decision process and travel experience of our customers.

REFERENCES


