

Market segmentation in tourism – An operational assessment framework

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1 Introduction

Distribution channels are the paths by which tourism organizations carry out the communication and sales of their products and services. To varying degrees, all tourism product suppliers depend on these channels for the distribution of their products (Bitner and Booms, 1982; Middleton, 1994). While the importance of understanding and managing the structure and behaviour of such channels has been clearly identified in many mainstream academic and trade publications (Holloway and Plant, 1988; Duke and Persia, 1993; Ryan, 1991), relatively little tourism research has focused on this subject (Uysal and Fesenmaier, 1993; Buhalis, 2000). Many destinations have also invested in Information and Communication Technologies (ICTs), in their quest for more efficient and effective ways of managing tourism demand and facing domestic and global competition (Sigala et al., 2004). Consumer behaviour, on the other hand, has attempted to explain the decision-making processes of consumers facing several alternatives or choices. Van Raaij (1986) posited that “consumer research on tourism should be a cornerstone of marketing strategy”.

While the tourism literature evidences that several factors influence travellers’ behaviour in consuming tourism products (Lepp and Gibson, 2008; Hsu et al., 2009), to date, investigation into the determinants of tourism consumption remains inadequate in the literature; for example, the relative importance of the various information sources (ICT sources included) used by travellers has not yet been systematically analysed. Given the increasing importance of this particular market segment for destinations, additional research is needed to understand the behaviour of tourists in an attempt to bring further theoretical and practical contributions to this field of study (Ramkissoon et al., 2011). The present paper provides a comprehensive overview of the behaviour patterns of travellers to Arcadia (Greece) and contributes to the study of information sourcing behaviour in their travel decision process. It also provides a basis for channel members, especially suppliers, to assess their distribution strategies

The research took place in Arcadia, a historic land of intense and continuous presence from antiquity to the Byzantine and modern periods of history. In the European countries after the Renaissance, the “Arcadian ideal” refers to the dream of escaping from the disturbed world of violence and exploitation and returning to a world of eternal innocence and tranquillity that would be based on the good operation and fair competition of its members. Our research provides a better understanding of how channels are used by different types of travellers in different types of travel situations. The study adopts a dynamic situational perspective (Bieger and Laesser, 2002), combining

characteristics of travellers with characteristics of trips, and formulating the relevant hypotheses which are analysed below.

2 Background Literature

2.1 Tourist segmentation

Market segmentation is a technique used to subdivide a heterogeneous market into homogeneous subgroups that can be distinguished by different variables, such as consumer needs, characteristics, or behaviour (Kotler, 1998; Middleton, 1994). Because people have individualized needs, tastes, and attitudes as well as different life stages and lifestyles, no single variable can be used to segment travel markets (Andereck and Caldwell, 1994). The primary bases for segmentation include demography, geography, behaviour, lifestyle, personality, motivations (Cha et al., 1995; Madrigal and Kahle, 1994), benefits sought (Gitelson and Kerstetter, 1990), while some basic characteristics (e.g. demographic and behavioural) are sometimes criticized for their failure to adequately predict actual consumer behaviour (Andereck and Caldwell, 1994; Cha et al., 1995; Morrison et al., 1996; Prentice et al., 1998). Employing multiple variables should yield greater explanatory power than using a single variable. In several major hospitality and tourism texts, the use of “multi-stage segmentation” (Middleton, 1994; Havitz and Dimanche, 1990; Morrison, 1996) or a “combination” of multiple variables rather than just one has been recommended. A review of the literature indicates that there is no single correct way to segment a market.

Market segmentation is a valuable instrument in planning appropriate marketing strategies, and can assist in framing management thinking. Segmentation is justified on the grounds of achieving greater efficiency in the supply of products in order to meet identified demand and increased cost effectiveness in the marketing process and maximize financial resources (Perdue, 1985). Numerous methods of tourist segmentation exist, including a posteriori or factor-cluster segmentation, a priori or criterion segmentation, and neural network models (Mazanec, 1992). A priori market segmentation can be less time consuming and more effective for separating markets at less cost. In tourism, the importance of segmentation is widely acknowledged (Bieger and Laesser, 2002; Cha et al., 1995; Kastenholz et al., 1999; Mo et al., 1994). To date research has assisted us to understand which bases can be used by tourism destinations to effectively segment tourism markets, and these efforts have largely centred upon building tourist profiles for a destination, using visitor data (Frochot, 2005).

The purpose of the trip is recognized as one of the non-traditional segmentation bases closely associated with travel motivation, and has been approached from different perspectives in formulating marketing segmentation

approaches. Examples of such studies include the interaction of trip purposes with activities (Hsieh et al, 1992; Morrison et al., 1994; Moscardo et al., 1996), interest (Sorensen, 1993; Wight, 1996), motivation (Cha et al., 1995; Wight, 1996), and opinion and value (Madrigal and Kahle, 1994). In using trip type as a key variable to segment the travel market, the inclusion of more trip-related characteristics in the analysis is highly recommended for a comprehensive understanding of the target segment from a consumer behaviour perspective (Sung et al, 2001). Such characteristics include length of stay and size of the travel party (Hsieh and O'Leary, 1993).

2.2 Information search and distribution channels' usage

Buhalis (2000, p.113) saw the functions of distribution in these terms: "The primary distribution functions for tourism are information, combination and travel arrangement services. Most distribution channels therefore provide information for prospective tourists; bundle tourism products together; and also establish mechanisms that enable consumers to make, confirm and pay for reservations". These purposes and functions have received unequal attention from researchers examining the visitors' perspective, and relevant studies are often not set squarely in the literature on distribution channels. This is especially the case with questions of information search, in which a large discrete body of work has developed as one take of interest in consumer behaviour. A distinction of tourism distribution channels can be made between those which are direct and those which are indirect in character. *Direct channels* normally link suppliers and consumers without the aid of channel intermediaries. Such channels normally involve suppliers developing and maintaining direct information and sales contacts with consumers in specific target market areas. *Indirect distribution channels* (e.g. travel agents, tour operators and wholesalers) involve a wide range of organizations communicating and selling products to consumer markets on behalf of tourism suppliers and destinations (Gee et al, 1989; Michie and Sullivan, 1990). All of these channel operators have the potential to significantly influence the travel patterns and behaviour of specific travel markets.

There is no clear answer to the question which type of channel should best be used, and it is important for tourism suppliers and destination marketing organizations to understand the product preferences, the prior experiences, perceived risks, travel package price thresholds, use of unique or novel destinations, and market support needs of channel partners and their customers prior to forming their marketing strategy (Hsieh and O'Leary, 1993; Haukeland, 1995; Snepenger et al., 1990; Calantone and Mazanec, 1991). Generally, the closer the destination is to the consumer in physical, product awareness, and experiential terms, the more direct the channel of distribution becomes. Frequently, however, strategic information concerning the product preferences of potential channel partners and their customers is not available

(Murray, 1991). Understanding how customers acquire information is important for marketing management decisions. This is especially true for travel and tourism products, which are delivered away from home, often in unknown places, inducing functional, financial, physical, psychological, and social risks (Lovelock and Wright, 1999; Teare, 1992; Srinivasan, 1990; Wilkie and Dickson, 1985). Travel products are mostly intangible personal service products, involving personal interactions between customers and service providers (Lovelock and Wright, 1999; Normann, 1996; Teare, 1992) and the consumption and production of tourism products always coincide, creating high personal involvement (Bieger and Laesser, 2002). According to the economics of information, these characteristics often lead to high personal investments of time, effort, and financial resources for customer decision making (Lambert, 1998).

The use of information sources has also been applied empirically as a segmentation variable. When employed as a descriptor to profile the behaviour of tourists who have been segmented on some other basis, information search has provided valuable insights for planning marketing strategies and targeting marketing communications (Moutinho, 1987). With increasing frequency, tourists have been directly segmented based on their search behaviour (Bieger and Laesser, 2004; Fodness and Murray, 1997; Um and Crompton, 1990; Baloglu, 1999; Crotts, 1998; Snepenger and Snepenger, 1993; Etzel and Wahlers, 1985; Perdue, 1985; Schul and Crompton, 1983; Woodside and Ronkainen, 1980). With regard to information search behaviour research, three major theoretical streams can be identified (Schmidt and Spreng, 1996; Srinivasan, 1990; Bieger and Laesser, 2004): namely, (a) the individual motivation approach; (b) the economic cost-benefit approach; and (c) the process approach.

(a) The Psychological/Motivational/Individual Characteristics Approach

Traditional perspectives of information search focus on functional needs, defined as motivated efforts directed at or contributing to, a purpose (Vogt and Fesenmaier, 1998). According to this approach, the search for information enables travellers to reduce the level of uncertainty and hence enhance the quality of a trip (Fodness and Murray, 1997; Teare, 1992; Schiffmann, 1972). The psychological/motivational approach can be linked to travel motivation theory, where a differentiation between a push and pull demand stimulation is stipulated (Cha et al., 1995). The idea behind this dimensional approach lies in the proposition that people are pushed by their own internal forces and pulled by the external forces of the destination attributes (Gitelson and Kerstetter, 1990; Yuan and McDonald, 1990; Shoemaker, 1994, 1989). Consequently, the individual's characteristics influence the utilization of available internal and external information sources (Bonn et al., 2001; Schonland and Williams,

1996; Crompton, 1992; Snepenger et al., 1990; Leiper, 1990; Hugstad and Taylor, 1987).

After identification of needs, customers may first start internal search, using existing knowledge that is also dependent on consumers' ability to access stored knowledge and information contained in memory related to past experiences with the provider and other related learning about the environment/situation, such as vicarious learning when actual experience is not available (Peter and Olson, 1996). Examples of vicarious learning include gathering information via word of mouth about the experiences of others with service providers. (Bettman, 1979; Solomon et al., 1985; Alba and Hutchinson, 1987; Brucks, 1985; Gursoy and MacLeary, 2003; Kim et al, 2007; Vogt and Fesenmaier, 1998). If internal search is not successful and consumers face uncertainty, then they continue with external search, that is information seeking from the environment (Murray, 1991). Various typologies exist for classifying external sources of information, including: service-provider dominated (advocate) versus independent/objective sources (Murray, 1991); personal versus impersonal sources (Hawkins et al., 1998); and, from the tourism literature, professional versus non-professional sources (Opperman, 1999). Typically, the consumer will prefer one source over another based on the perceived effectiveness of a particular information source. Implicit in the concept of source effectiveness is the notion that some types of sources are more influential than others in providing useful information with which to form pre-service encounter expectations (Hawkins et al., 1998).

Although information seeking is often coupled with a cultural (and therefore regionally different) background resulting in different patterns of behaviour (Dawar, 1993), a number of common travel-specific denominators regarding information collection have also been identified, such as length of trip, previous experience and/or visits to the destination, and travel party characteristics (e.g. composition of the vacation group, the presence of family and friends at the destination). All these determine information search behaviour, defined not only in terms of the use of particular sources but also in terms of information search effort, the number of sources used, situational influences, product characteristics (e.g. the degree of novelty associated with the destination), and search outcomes (Fodness and Murray, 1997; Woodside and MacDonald, 1994; Schul and Crompton, 1983; Bieger and Laesser 2002; Snepenger et al., 1990).

Gursoy and MacLeary (2003) proposed a model of tourist information search behaviour that integrated internal and external search, cost of search, concepts of familiarity, expertise, and previous visits with the involvement and learning of the individual. In addition, Zins and Teichmann (2006) conducted a longitudinal study where they found that the credibility of information channels change from the pre-trip to the post-trip phase. Bieger and Laesser (2004) also investigated the differences in information channels before and after a trip

decision is made. Consistent with the Zins and Teichmann (2006) study, the Bieger and Laesser (2004) study shows that the selection of the information channel differs significantly depending on type of trip, degree of packaging, and choice of destination. They also found that friends or, in the web context, other users are very important channels, as are guide books, regional and destination information brochures, and tourist boards (Bieger and Laesser, 2004).

(b) Economic Cost/Benefit Approach

According to the cost/benefit approach, tourists' search for information and the use of information sources depends on the expected costs and benefits of the information sourcing alternative. In that regard, most traditional perspectives of information search are embedded in processing theory and consumer behaviour models (Assael, 1984; Bettman, 1979), addressing issues such as the role of product knowledge (Hirschman and Wallendorf, 1982); uncertainty (Murray, 1991) either with regard to knowledge uncertainty or choice uncertainty; utility (Bettman and Sujan, 1987); and efficiency (Bettman, 1979). Costs within this framework are either generated on behalf of risk-limiting search costs or the assumption/acceptance of risk.

The assessment of risk is perceptual; and the information search strategy with the greatest possible efficiency reduces risk and uncertainty (Murray, 1991; Bettman, 1973; Schiffmann, 1972). According to Mitra et al., (1999), perceived risk derives from a cognitive conflict between customer expectations and the anticipated outcome of the purchase decision, with information sourcing as a reaction to this conflict in order to re-establish cognitive balance. Murray (1991) and Lutz and Reilly (1973) further suggested that perceived risk and information search are positively correlated. Risk encountered in service purchase can be reduced by seeking additional information about the service (Lutz and Reilly, 1973; Hugstad and Taylor, 1987). This implies that the higher the perceived risk (associated with the purchase of services), the more likely it is that there will be a heightened information search effort on the part of the tourist. However, consumers' information behaviour is also likely to be influenced by the perceived costs of information search. When the perceived costs of acquiring additional information are high, information search declines (Lee and Cunningham, 2001; Porter, 1985). The economics of information perspective implies a consumer trade-off between the perceived benefits and costs of acquiring additional information.

(c) Process Approach

Recent studies have recognized that travel decision making is complex, involving multiple decisions including length of trip, primary destinations, companions, activities, attractions, accommodations, trip routes, food stops, and shopping places (Fesenmaier and Jeng, 2000; Moutinho, 1987; Woodside

and MacDonald, 1994). For multiple product decisions, travellers search for information and move back and forth between, the search and the decision-making stages (Woodside and MacDonald, 1994). In addition, actual travel behaviour does not always follow plans (March and Woodside, 2005). Accordingly, in studying travel behaviour, researchers should consider interactions or intersections of multiple goals and decisions, information search as an ongoing process, and differences in planned and actual behaviors. The process approach focuses on the process of information search rather than on the action itself.

A number of authors have reported that the choice process adopted by consumers with regard to non-routinized, high-involvement purchases is phased (Correia, 2002; Vogt and Fesenmaier, 1998; Hsieh and O'Leary, 1993; Crompton, 1992; Um and Crompton, 1990; Woodside and Lysonski, 1989; Bettman and Sujun, 1987). A number of concepts are proposed to describe the process of decision making. Basically, they include a number of input variables and a phased process that includes an information acquisition phase, a procession phase, a purchase phase, and, last but not least, a consumption phase (Vogt and Fesenmaier, 1998; Correia, 2002). Crompton (1992) identified three stages of this process, including an initial consideration set, a late consideration set, and an action and interaction set. Leiper (1990) puts forward a model in which a generating information marker (i.e. information received before setting out) creates a reaction on the needs/wants of a potential traveller, leading to positive expectations/motivations and to a travel decision. Vogt and Fesenmaier (1998) propose a five-stage model, focusing on the heuristics of information finding and decision making. In this model, purchase and consumption coincide. Correia (2002) examined and expanded the travellers' decision-making process and classified the act of purchasing a trip into three distinctive stages: the pre-decision stage; the decision stage; and the post-decision stage.

A few researchers have suggested that travel-planning theories are more suitable to explain or predict complex travel behaviours compared to the single goal-oriented decision-making theories, because a planning process includes multiple decisions and interactions among decisions (Pan and Fesenmaier, 2003). A plan is a traveller's reasoned attempt to recognize and define goals, consider alternative actions that might achieve the goals, judge which actions are most likely to succeed, and act on the basis of those decisions (Hoc, 1988). This definition of planning includes all information search behaviours, information uses or applications, purchase behaviours, actual trip behaviours, and the learning from all these experiences.

The Internet has intensified the complexity of the travel decision-making process, as it has become an important channel for travellers' information search (Gretzel et al., 2006; Gursoy and MacLeary, 2003; Pan and Fesenmaier, 2006; Xiang et al., 2008; Jun et al., 2007), creating an environment whereby

online information providers such as tourist boards, hotel and resort websites, travel agents, bloggers and magazines actively compete for attention to attract searchers and ultimately, bookers. Many travel decision-making models present information search and assessment as having been processed before decision making (Um and Crompton, 1990; Woodside and Lysonski, 1989); however, the Internet has made it easier for travellers to collect information, purchase travel products, and change their decisions at any stage of the decision-making process.

The Internet provides an opportunity for travel and tourism service providers to intermix traditional marketing channels (i.e. distribution, transaction, and communication), which were previously considered independent processes (Zins, 2009). A single interaction on the Internet can provide product information, a means for payment and product exchange, and distribution, whereas more traditional interaction frequently separates these functions (Jun et al., 2007). Particularly interesting studies have considered the use of online information sources relative to more conventional ones. The application and extension of Information Technology (IT) in the tourism sector (Buhalis and Law, 2008; Buhalis and Zoge, 2007) has greatly favoured the dissemination of information about tourism destinations and their promotion, mainly through the World Wide Web, which some consider to be the ideal source for the distribution of such information. Nonetheless, a considerable part of the studies produced on the new IT deal with the possibilities that this IT can offer to market tourism destinations.

As a consequence of all this, we conclude that a gap in the tourism literature concerns the need for more research about information at destinations. The aim of this present research is to examine the tourists' requirements for information, the effects of socio-demographic characteristics on information search, and the tourists' information search behaviour, for instance, the influence of the information on trip characteristics such as the composition of the traveller party.

3 Research Method

3.1 Data collection

The present investigation was designed to further understand the tourism market in the province of Arcadia, Greece, over a period of 12 months, between July 2007 and July 2008 in order to eliminate seasonality. The survey, included Greek and foreign tourists in the region. In most cases, the hotel owner or manager agreed to collect the data for the study, as the survey questionnaires were distributed to the survey sites, and respondents freely participated in answering the survey questionnaire after they had stayed in the hotel for at least one night. Then, the researchers visited each hotel and

collected the completed survey questionnaires. Data were collected by using a four-page self-administered questionnaire primarily designed to gather information on the subjects' general motivations for travel. A total of 3500 questionnaires were given to tourists. Ultimately, 820 usable questionnaires were collected, which leads to the response rate of 23.43 per cent.

3.2 Analysis

The survey data were coded and analysed using R, an open-source statistical package. A descriptive-statistical analysis was applied to the collected data to explore the overall sample profile. Chi-square tests were conducted to verify whether differences between the above mentioned two tourist sub-groups, as regards the particular characteristics of the population of tourists, are due to chance variation or reveal some statistically significant trend. Chi-squared tests were chosen for use in this exploratory investigation to aid in making an inference about the uniform distribution (or not) of the two sub-groups in relation to demographic variables, trip characteristics, selection of information sources for their journey, and their degree of satisfaction from the use of these information sources.

3.3 Research objectives and hypotheses

All the previously mentioned approaches demonstrate the complexity of the information search process, illustrate a range of approaches (psychological-motivational and cost-benefit being the most prominent), and emphasize a concern with determinants, information sources, decision making, and segmentation. The overall goals of the present research was to combine research about information both at the tourism destinations and before the trip, question whether segmentation based on the information search behaviour is an appropriate way to develop marketing strategies and target marketing communications; and analyse the importance of information at destinations from the tourists' perspective. The specific objectives of the study were to compare the importance that international and domestic tourists attribute to various forms of information, both at tourism destinations and in the pre-trip context, and make an analysis of their information sourcing behaviour, based on internal and external information sources, including the use of the Internet. This would provide a better understanding of how channels are used by different types of travellers in different types of travel situations, thus taking a dynamic situational perspective (Bieger and Laesser, 2002), combining characteristics of travellers with characteristics of trips. Bearing in mind the objectives of this study, the hypotheses formulated state the following:

H1. The composition of the travel party has an effect on the way tourists seek information about their journey (trip-related, situational descriptor).

H2. The socio-demographic characteristics of the traveller (gender, age, education level, occupation, nationality) have an effect on the way tourists seek information about their trip.

H3. The purpose of the trip has an effect on the way tourists seek information.

These hypotheses are now tested in our subsequent analysis.

4 Results

4.1 The travel party (H1)

Table 1 displays the results from the comparison of the distribution of the population according to how the travel party is composed (out of the total population: 49 per cent travel with friends, 41.7 per cent with family, and 6.2 per cent on their own), with the distribution of sub-groups of the population according to the same criterion, i.e. the composition of the travel team/party. The sub-groups are determined by the use of the different sources of information displayed on Table 1. The results of the Chi-squared test reveal that statistically significant differences are observed only with regard to the 'Oral Information provided by retailer/agency' (source 3). Significant percentage of tourists who made use of this particular source travel with their family compared with their share in the total population. Other than that, we do not observe any other significant differences in the distribution of the total population and the individual sub-groups according to the composition of the trip party.

Table 1: Comparison between the sources of information and the composition of the travel company/team

	On you own	With friends	With family	Total	Chi-squared test
Total Population	6.2%	49.0%	41.7%	820	
Information Brochures (Source 1)	4.6%	44.3%	48.9%	131	X-squared = 2.3649, df = 2, p-value = 0.3065
Hotel Listings (Source 2)	3.9%	51.0%	43.1%	51	X-squared = 0.4671, df = 2, p-value = 0.7917
Oral Information provided by retailer/agency (Source 3)	6.8%	29.6%	59.1%	44	X-squared = 6.3642, df = 2, p-value = 0.0415
Oral information provided by tourist information at the destination or from local tourist offices (Source 4)	0%	50.0%	43.8%	16	X-squared = 1.03, df = 2, p-value = 0.5975
Advertisements and articles in newspapers/magazines(Source 5)	5.4%	38.8%	51.2%	129	X-squared = 4.9285, df = 2, p-value = 0.08507
Travel guidebooks and travel magazines (Source 6)	4.0%	51.1%	42.8%	278	X-squared = 2.0926, df = 2, p-value = 0.3512
Radio and TV broadcasts (Source 7)	7.1%	44.7%	45.9%	170	X-squared = 1.2653, df = 2, p-value = 0.5312
Video,CDROM,DVD,Video-text (Source 8)	6.8%	31.8%	52.3%	44	X-squared = 3.7485, df = 2, p-value = 0.1535
INTERNET (Source 9)	5.1%	54.9%	37.0%	430	X-squared = 4.0599, df = 2, p-value = 0.1313
Recommendation from friends & relatives (Source 10)	5.2%	49.8%	42.5%	442	X-squared = 0.5747, df = 2,p-value = 0.7503
Personal experience/ Knowledge (Source 11)	10.4%	45.1%	41.8%	131	X-squared = 4.2729, df = 2, p-value = 0.1181

Note: Significant differences ($p < 0.05$) in mean scores printed in bold.

4.2. Socio-demographic characteristics (H2)

In the following paragraphs we analyse the use of the different sources of information with regard to the socio-demographic characteristics of the participants for this survey, i.e. gender, age, education level, occupation and nationality. In the analysis, the results of which are presented in the following Tables 2, 3, 4 and 5, we have made comparisons between the distribution of the total population and that of sub-groups of the population. These sub-groups are created according to the use of the different sources of information. Statistically significant results (i.e. $p\text{-value} < 0.05$) reveal that the characteristic under analysis is not independent of the use of the information sources.

Gender

The total population comprises 55.4 per cent women and 42.2 per cent men. This distribution pertains for sub-groups of the population (see Table 2), with the exception of the users of Source 5 (Advertisements and articles in newspapers/magazines), Source 6 (Travel guidebooks and travel magazines) and Source 7 (Radio and TV broadcasts). In these three sources we observe greater participation of women (above 65 per cent) compared to the total population.

Age

In the total population, the age group between 25 and 34 years accounts for approximately one third (30.4 per cent) of the total population, while only a small proportion of the population are above 65 (3.9 per cent). This distribution pertains in most sub-groups (see Table 2), with the exception of Source 3 ('Oral Information provided by retailer/agency'), Source 4 ('Oral information provided by tourist information at destination or from local tourist offices') and Source 9 ('Internet'). In particular, for users of Source 3 we observe higher frequencies (27.3 per cent) in the ages above 55, compared with the total population (12.6 per cent) and accordingly frequencies in the younger ages are smaller. The situation is similar with users of Source 4, while the majority (63.3 per cent) of users of Source 9 are between 25 and 44 years' old, significantly above the corresponding frequencies for the total population.

Education

40.5 per cent of all the participants of this survey have tertiary education. Second in frequency come those with secondary education (24.3 per cent), and third holders of postgraduate degrees (21.5 per cent). The results of Table 3 reveal that this distribution is similar for all sub-groups, with the exception of Source 4 ('Oral information provided by tourist information at the destination or from local tourist offices'), Source 8 ('Video, CD- Rom, DVD, Videotext') and Source 9 ('Internet').

In particular for users of Source 4, we observe that a significantly higher percentage of tourists (18.8 per cent) have primary education, while the corresponding percentage for the total population is considerably lower (3.7 per cent). For users of Source 8, we always see higher frequencies, compared with the total population, in the group who have secondary education (43.2 per cent compared to 24.3 per cent in the total population). Users of Source 8 who have tertiary education are considerably less (11.4 per cent compared to 40.5 per cent in the total population). Finally users of the Internet are mostly gathered in the categories 'Tertiary education' and 'Postgraduate studies' (71.2 per cent compared with 62 per cent in the total population).

Nationality

The majority of the participants in this survey were Greeks (85.4 per cent) as opposed to 14.6 per cent foreigners. When comparing the total population with the sub-groups of users of the different sources of information significant differences were only observed for users of Source 7 ('Radio and TV broadcasts') and Source 8 ('Video, CD- Rom, DVD, Video-text'). (The results of Table 1). In particular, foreign users of Source 7 are significantly more (21.2 per cent) than foreigners in the total population (14.6 per cent). The same happens with users of Source 8, with even higher frequency of foreigners (45.5 per cent) in this group.

Occupation

The most commonly reported occupations in order of frequency in the total population are: Scientific and free professional (27.7 per cent), Clerical worker (18 per cent), Administrative and Managerial worker (14.6 per cent) and Students (10 per cent). The results of the analysis reveal that the distribution of tourists according to their occupation is not significantly different in the various sub-groups when compared with their distribution in the total population, with the exception of Source 3 ('Oral Information provided by retailer/agency'), Source 5 ('Advertisements and articles in newspapers/magazines'), and Source 8 ('Video, CD- Rom, DVD, Videotext'). In particular:

- the most common jobs among users of Source 3 are Administrative and Managerial workers (29.6 per cent), Scientific and free professionals (18.2 per cent), Pensioners (18.2 per cent) and Trade and sales workers (9.1 per cent);
- the most common jobs among users of Source 5 are Scientific and free professionals (30.2 per cent), Clerical workers (20.2 per cent), Students (11.6 per cent) and Housework (10.9 per cent);
- the most common jobs among users of Source 8 are Housework (20.5 per cent), Scientific and free professional (15.9 per cent), Craftsmen, workers, operators (15.9 per cent) and Students (15.9 per cent).

4.3 Trip purposes (H3)

Table 5 shows the results from the Analysis of Variance (ANOVA) that has been applied to identify significant differences in the mean scores (ranging between 1 – 'Very unlikely' to 5 – 'Very likely') that users of the different sources of information gave to the different trip purposes. The table summarizes for each 'trip purpose' and 'source of information' combination the mean score, along with a ranking that shows the preference that users of each source had for the different trip purposes. The table has been arranged according to the ranking derived for users of Source 1 (i.e. Information Brochure). The results on the table reveal that differences in the mean scores

are found to be significant ($p\text{-value} < 0.05$) only with respect to the following 'trip purposes': Visiting natural attractions and enjoying the quiet nature of the region; Learning about local culture/history; Night life/entertainment; Shopping and Visiting agricultural sites. The results shown on this table also indicate that Sunbathing/Swimming comes first in the preference of users of all the different sources of information, with the exception of the Information Brochures, which comes third in the preference of users of this source. Visiting natural attractions and enjoying the quiet nature of the region and Learning about local culture/history also come high (in the first three most-popular purposes) in the preferences of users of all sources. Differentiation is observed only with respect to the magnitude of preference, expressed by the mean score.

Table 2: Chi-square analysis of socio-demographic characteristics for users of the different sources of information - Gender, Age

	Gender			Age						
	Men	Women	Chi-squared test	15-24	25-34	35-44	45-54	55-64	Πάνω από 65	Chi-squared test
Total population	42.20%	55.40%		14.4%	30.4%	23.2%	17.4%	8.7%	3.9%	
Source 1	35.11%	61.83%	$X\text{-squared} = 1.9405, df = 1, p\text{-value} = 0.1636$	16.79%	22.14%	25.19%	17.56%	13.74%	3.05%	$X\text{-squared} = 6.5593, df = 5, p\text{-value} = 0.2555$
Source 2	37.25%	62.75%	$X\text{-squared} = 0.48, df = 1, p\text{-value} = 0.4884$	23.53%	19.61%	27.45%	17.65%	7.84%	1.96%	$X\text{-squared} = 5.4417, df = 5, p\text{-value} = 0.3644$
Source 3	47.73%	52.27%	$X\text{-squared} = 0.1824, df = 1, p\text{-value} = 0.6693$	18.18%	11.36%	15.91%	25%	13.64%	13.64%	$X\text{-squared} = 18.036, df = 5, p\text{-value} = 0.002902$
Source 4	31.25%	62.50%	$X\text{-squared} = 0.2553, df = 1, p\text{-value} = 0.6133$	6.25%	12.5%	31.25%	12.5%	18.75%	18.75%	$X\text{-squared} = 12.8597, df = 5, p\text{-value} = 0.02473$
Source 5	30.23%	68.22%	$X\text{-squared} = 6.592, df = 1, p\text{-value} = 0.01024$	11.63%	27.91%	27.91%	20.93%	6.2%	3.88%	$X\text{-squared} = 3.4317, df = 5, p\text{-value} = 0.6337$
Source 6	32.73%	65.47%	$X\text{-squared} = 7.886, df = 1, p\text{-value} = 0.004982$	12.59%	28.78%	25.54%	16.55%	8.99%	4.68%	$X\text{-squared} = 1.5665, df = 5, p\text{-value} = 0.9053$
Source 7	33.53%	64.12%	$X\text{-squared} = 4.1323, df = 1, p\text{-value} = 0.04207$	15.29%	22.94%	27.65%	18.82%	9.41%	3.53%	$X\text{-squared} = 4.2274, df = 5, p\text{-value} = 0.5172$
Source 8	47.73%	47.73%	$X\text{-squared} = 0.4904, df = 1, p\text{-value} = 0.4838$	25%	13.64%	18.18%	27.27%	11.36%	2.27%	$X\text{-squared} = 10.4696, df = 5, p\text{-value} = 0.06297$
Source 9	44.19%	53.26%	$X\text{-squared} = 0.409, df = 1, p\text{-value} = 0.5225$	14.19%	36.98%	26.28%	15.81%	3.49%	1.4%	$X\text{-squared} = 22.1264, df = 5, p\text{-value} = 0.0004954$
Source 10	41.63%	56.79%	$X\text{-squared} = 0.0689, df = 1, p\text{-value} = 0.793$	12.22%	31.9%	24.66%	16.06%	8.82%	5.43%	$X\text{-squared} = 3.2711, df = 5, p\text{-value} = 0.6583$
Source 11	45.60%	51.10%	$X\text{-squared} = 0.7432, df = 1, p\text{-value} = 0.3886$	14.29%	26.92%	24.73%	19.78%	8.79%	3.85%	$X\text{-squared} = 1.2034, df = 5, p\text{-value} = 0.9446$

Note: Significant differences ($p < 0.05$) in mean scores printed in bold.

Table 3: Chi-square analysis of socio-demographic characteristics for users of the different sources of information – Education level, Nationality

	Education Level					Chi-squared test	Nationality		Chi-squared test
	Primary	Secondary/high school	Tertiary	Postgraduate Studies	Other		Greeks	Foreigners	
Total population	3.7%	24.3%	40.5%	21.5%	6.8%		85.4%	14.6%	
Source 1	1.53%	30.53%	35.11%	19.85%	9.92%	X-squared = 5.7294, df = 4, p-value = 0.2203	83.2%	16.8%	X-squared = 0.2622, df = 1, p-value = 0.6086
Source 2	1.96%	39.22%	33.33%	17.65%	5.88%	X-squared = 5.5849, df = 4, p-value = 0.2324	80.4%	19.6%	X-squared = 0.5847, df = 1, p-value = 0.4445
Source 3	4.55%	20.45%	40.91%	25%	9.09%	X-squared = 0.82, df = 4, p-value = 0.9357	79.6%	20.5%	X-squared = 0.7027, df = 1, p-value = 0.4019
Source 4	18.75%	12.5%	31.25%	25%	6.25%	X-squared = 10.6906, df = 4, p-value = 0.03027	87.5%	12.5%	X-squared = 0.0139, df = 1, p-value = 0.906
Source 5	3.1%	24.81%	44.19%	21.71%	4.65%	X-squared = 1.2433, df = 4, p-value = 0.871	83.0%	17.1%	X-squared = 0.3405, df = 1, p-value = 0.5595
Source 6	2.52%	24.82%	48.2%	17.63%	3.96%	X-squared = 8.0167, df = 4, p-value = 0.09097	81.7%	18.4%	X-squared = 1.9017, df = 1, p-value = 0.1679
Source 7	4.12%	18.82%	45.29%	15.88%	11.76%	X-squared = 9.3049, df = 4, p-value = 0.05391	78.8%	21.2%	X-squared = 4.0607, df = 1, p-value = 0.04389
Source 8	4.55%	43.18%	11.36%	18.18%	18.18%	X-squared = 22.8263, df = 4, p-value = 0.0001372	54.6%	45.5%	X-squared = 26.9882, df = 1, p-value = 2.047e-07
Source 9	2.56%	19.77%	45.81%	25.35%	4.42%	X-squared = 9.9672, df = 4, p-value = 0.04098	82.1%	17.9%	X-squared = 2.036, df = 1, p-value = 0.1536
Source 10	2.94%	28.05%	44.57%	18.1%	4.52%	X-squared = 7.2209, df = 4, p-value = 0.1247	85.3%	14.7%	X-squared = 0.0024, df = 1, p-value = 0.9609
Source 11	5.49%	21.43%	38.46%	21.98%	8.79%	X-squared = 2.7372, df = 4, p-value = 0.6027	89.0%	11.0%	X-squared = 1.3571, df = 1, p-value = 0.2440

Note: Significant differences ($p < 0.05$) in mean scores printed in bold.

Table 4: Chi-square analysis of socio-demographic characteristics for users of the different sources of information - Occupation

	Occupation										Chi-squared test
	Scientific, free professional, technical, etc.	Administrative/Managerial	Clerical	Trade & Sales	Farmer, fisherman, etc.	Craftman worker, operator	Pensioner	Housework	Unemployed, looking for job	Student	
Total population	27.7%	14.6%	18%	7.1%	2%	4.9%	5.6%	4.6%	4.4%	10%	
Source 1	32.82%	8.4%	16.79%	7.63%	0.76%	3.82%	6.87%	3.82%	6.87%	10.69%	X-squared = 7.5712, df = 9, p-value = 0.5779
Source 2	25.49%	11.76%	19.61%	13.73%	0%	3.92%	1.96%	9.80%	0%	11.76%	X-squared = 10.6041, df = 9, p-value = 0.3038
Source 3	18.18%	29.55%	6.82%	9.09%	2.27%	0%	18.18%	2.27%	6.82%	6.82%	X-squared = 24.6377, df = 9, p-value = 0.003399
Source 4	12.5%	0%	18.75%	25%	0%	6.25%	12.5%	6.25%	0%	12.5%	X-squared = 13.6691, df = 9, p-value = 0.1346
Source 5	30.23%	8.53%	20.16%	4.65%	2.33%	0.78%	4.65%	10.85%	6.2%	11.63%	X-squared = 17.9038, df = 9, p-value = 0.03631
Source 6	29.5%	14.75%	16.55%	5.76%	1.08%	2.52%	6.83%	7.55%	5.04%	10.07%	X-squared = 8.6267, df = 9, p-value = 0.4724
Source 7	25.29%	13.53%	14.71%	4.71%	2.94%	10%	5.88%	4.71%	8.24%	9.41%	X-squared = 13.7054, df = 9, p-value = 0.1332
Source 8	15.91%	4.55%	6.82%	0.00%	9.09%	15.91%	6.82%	20.45%	2.27%	15.91%	X-squared = 51.5289, df = 9, p-value = 5.549e-08
Source 9	29.77%	17.44%	19.53%	6.51%	1.16%	3.49%	1.63%	4.65%	3.95%	10.7%	X-squared = 15.4161, df = 9, p-value = 0.08012
Source 10	28.05%	11.54%	21.04%	7.01%	2.26%	1.36%	7.24%	6.11%	4.3%	10.18%	X-squared = 15.7455, df = 9, p-value = 0.07239
Source 11	30.77%	17.03%	16.48%	3.3%	2.75%	4.95%	7.14%	4.4%	4.95%	7.69%	X-squared = 6.5691, df = 9, p-value = 0.6819

Note: Significant differences ($p < 0.05$) in mean scores printed in bold.

Table 5: Mean scores and ranking for combinations of trip purpose and the source of information

	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6	Source 7	Source 8	Source 9	Source 10	Source 11	ANOVA
Visiting natural attractions and enjoying the quiet nature of the region	4.09 (1)	4.04 (3)	4 (2)	4.07 (2)	4.15 (2)	4.15 (2)	3.75 (3)	3.65 (2)	4.13 (2)	4.14 (2)	4.11 (1)	F-value=3.4676, df=10, p-value=0.0001562
Learning about local culture/history	4.05 (2)	4.14 (2)	3.83 (4)	4 (3)	4.05 (3)	4.08 (3)	3.89 (2)	3.26 (4)	4 (3)	4.04 (3)	4.05 (3)	F-value=4.0015, df=10, p-value<<0.00005
Sunbathing/swimming	4.05 (3)	4.23 (1)	4.2 (1)	4.5 (1)	4.17 (1)	4.18 (1)	4.04 (1)	4.22 (1)	4.17 (1)	4.15 (1)	4.08 (2)	F-value=0.7247, df=10, p-value=0.7018
Night life/entertainment	3.76 (4)	3.54 (4)	3.37 (7)	3.38 (6)	3.52 (4)	3.6 (4)	3.6 (4)	3.05 (7)	3.64 (4)	3.58 (4)	3.64 (4)	F-value=2.0808, df=10, p-value=0.02302
Shopping	3.56 (5)	3.44 (5)	3.52 (3)	3.38 (5)	3.41 (5)	3.31 (5)	3.34 (5)	2.69(10)	3.31 (6)	3.29 (5)	3.49 (5)	F-value=2.8819, df=10, p-value=0.001416
Mountaineering and other intense athletic activities	3.31 (6)	2.96 (9)	2.97(10)	3.54 (4)	3.24 (6)	3.23 (6)	3.25 (8)	3.19 (5)	3.37 (5)	3.27 (6)	3.27 (7)	F-value=0.9548, df=10, p-value=0. 04814
Winter holiday in the snow	3.25 (7)	3.08 (8)	3.05 (9)	3 (9)	3.13 (8)	3.12 (8)	3.26 (7)	2.6 (11)	3.29 (7)	3.22 (7)	3.17 (9)	F-value=1.6514, df=10, p-value=0.08683
Visiting friends and relatives	3.2 (8)	3.17 (7)	3.44 (5)	3.14 (7)	3.3 (7)	3.22 (7)	3.24 (9)	3.65 (3)	3.13 (8)	3.17 (8)	3.35 (6)	F-value=1.4577, df=10, p-value=0.1493
Visiting agricultural sites	3.11 (9)	2.62(10)	3.38 (6)	3 (8)	3.04(10)	2.97(10)	3.27 (6)	2.95 (9)	3.01 (9)	3.06 (9)	3.2 (8)	F-value=2.1924, df=10, p-value=0.01594
Visiting religious sites	3.08(10)	3.34 (6)	3.35 (8)	3.07(10)	3.07 (9)	2.99 (9)	2.87(10)	3.12 (6)	2.95(10)	3.04(10)	3.1 (10)	F-value=1.2377, df=10, p-value=0.2615
Watching sporting events	2.75(11)	2.42(11)	2.61(11)	2.92(11)	2.4 (11)	2.46 (11)	2.67(11)	3 (8)	2.54(11)	2.46(11)	2.49(11)	F-value=1.8092, df=10, p-value=0.05426
Mean score	3.47	3.36	3.43	3.45	3.41	3.39	3.38	3.22	3.41	3.40	3.45	

5 Conclusions

This paper supports the view that developing alliances with well-positioned, knowledgeable distribution channels is especially important for the assessment of tourism policies. The research implies that a segmentation based on the information search behaviour is an appropriate way to develop marketing strategies and target marketing communications. The promotion of attractions should ideally be based on an understanding of travellers' behaviour in order to achieve the long-term success of tourism, and providers of tourism products need to acknowledge and support the efforts of regional and national tourism organizations. The accuracy of the information is an important quality factor for building and maintaining trust in a specific source (Bieger and Laesser, 2004).

Hypothesis 1 which postulates "The composition of the traveller party has an effect on the way tourists seek information about their journey" is not verified by the results of our survey. The only exception is with regard to the 'Oral Information provided by retailer/agency', where a significantly higher percentage of tourists who made use of this particular source, travel with their family compared with their share in the total population. Thus, this trip-related, situational descriptor, i.e. the composition of the traveller party seems to have no effect on information search behaviour

The present study agrees with other researchers that travellers usually rely on multiple information channels depending on, as postulated by Hypothesis 2, their socio-demographic characteristics (Katsoni, 2011). However, this hypothesis is only partially verified by the results of this analysis. It is important to note that women make greater use than men of information sources such as advertisements and articles in newspapers/magazines, travel guidebooks and travel magazines and radio and TV broadcasts. The analysis of education and age characteristics, also shows the Internet to be a favoured source of information among travellers who have university/college education and postgraduate studies, irrespective of gender, and who are in the age group 25 to 44 years old. Travellers in Arcadia are mainly scientific and free professionals (27.7 per cent), Clerical workers (18 per cent), Administrative and Managerial workers (14.6 per cent) and Students (10 per cent), and this distribution of tourists according to their occupation applies to all sources of information, with the exception of "Oral Information provided by retailer/agency", 'Advertisements and articles in newspapers/magazines' and 'Video, CD- Rom, DVD, Videotext'. The analysis of the similarities and differences between international and domestic tourists regarding the importance of the information at destinations shows that correspondences exist between both groups on the order of use of the information source, with the exception of Radio and TV broadcasts'

and 'Video, CD- Rom, DVD, Videotext' which are slightly more preferred by foreign travellers.

Hypothesis 3: "The purpose of the trip has an effect on the way tourists seek information" is only partially verified by the results of this analysis. Differences are found only with respect to the following 'trip purposes': Visiting natural attractions and enjoying the quiet nature of the region; Learning about local culture/history; Night life/entertainment; Shopping; and Visiting agricultural sites, which come first, second, third, fourth and fifth, respectively, in the preference of users of all the different sources of information. It is also noteworthy that Watching sporting events comes last in the preference of users of all the different sources of information, with the exception of Source 8, Video, CDROM, DVD and Videotext.

The results of this study have important implications from the managerial perspective at the tourism destinations. The present study can help managers carry out their task in a more informed and strategic manner by examining the effects of demographic traits on tourist consumption and considering the effects that the provision of information has for the tourists at the destinations. This information can increase the economic impacts from travel and tourism at the destinations, and lead to the adoption of the necessary measures to reinforce the forms of information analysed in this study in order to attract the most suitable target market. The implementation of the forms of communication analysed requires the collaboration of diverse tourist agencies, and the creation of the Destination Management Systems (DMSs) or the Destination Management Organizations (DMO) to integrate all this information in a manner that meets the needs of the tourists.

A main limitation of this study is that the research does not cover all important aspects associated with the information available at destinations, such as the modification of the image conveyed by a flood of information at destinations and the economic effects of the information on the destinations. "Internet" also is considered as a homogeneous source of information, as it neglects the different types and sources of information a tourist can collect in the web, such as social networks, DMO's websites, etc. More research on all these topics is necessary to develop a more complete understanding of the information at tourism destinations.

As tourism industry grows in both capacity and services, so will its need for a wide variety of distribution channels. This research has identified a range of strategies for developing and supporting links with them. It seems evident that Tourist Boards can have a significant impact on these processes, and the present findings will possibly help them by providing a brief examination of these issues.

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