Segmenting the Mature Travel Market with Data Mining Tools

Yawei Wang
Montclair State University, USA

Susan A. Weston
Montclair State University, USA

Li-Chun Lin
Montclair State University, USA

Soo Kim
Montclair State University, USA

INTRODUCTION

The graying of America is one of the most significant demographic changes to the present and future of the United States (Moisey & Bichis, 1999). As more baby boomers enter their 50s and 60s, the mature travel market becomes a fast-growing market segment and starts to attract attention from many tourism researchers and professionals. The significant increases in size and wealth of the older population make the mature travel market a strong component of the general travel market (Reece, 2004). Understanding the mature market as well as mature travelers' motivations are vital to the success of the travel industry (Brewer, Poffley, & Pederson, 1995; Hsu, Cai, & Wong, 2007).

Today's mature travel market can be generalized as being "different, diverse and demanding" (Harssel, 1994, p. 376). Faranda and Schmidt (1999) suggest that mature tourism marketers must recognize three critical components: the aging process comprehended from multiple disciplines, the acknowledged "heterogeneity and dynamic nature" of the mature market, and the "necessity for sound segmentation methods" (p. 24). It is not a simple task for marketers to fully understand the mature travel market.

In order to better understand and serve the diverse market, tourism professionals will have to use data mining (DM) tools and techniques to discover the hidden patterns and characteristics of the mature travel market. According to Pyo, Uysal, and Chang (2002), DM can be applied to many areas in tourism research. These areas include destination quality control and perceptions, environmental scanning and optimization, travel behavior, tourism forecasting, and market segmentation and positioning. Therefore, the purpose of this study is to review and analyze the segmentation methods reported in the literature during the past seven years on the mature travel market and to explore the application of DM tools regarding the segmentation of the mature travel market in the near future.

BACKGROUND

A diversity of segmentation variables have been documented in the literature of the mature travel market. The segmentation efforts usually focus on socio-demographic variables (e.g., age, gender, and employment status) and psychographic variables (e.g., motivations and constraints). Demographic and behavioral profiles are then developed and compared based on subgroups or segments, with the help of data analytical tools.

A Priori Segmentation

A priori segmentation approach has been widely used in tourism studies (Dolnicar, 2004). Most tourism researchers use geographic and demographic characteristics to analyze the market (Hsu & Lee, 2002). Socio-demographic variables, such as age, gender, and retirement, are already known before conducting statistical analyses. The number of segments is known and determined by pre-selected variables.

Age. Mature travelers' biological age is always used as a categorical variable to distinguish different subgroups within the mature travel market. Various terms are employed to describe different age subgroups, such as "age cycles," "first cycle" and "next cycle" (Fleischer & Pizam, 2002), and "young old," "old," and "very old" (Hong, Kim, & Lee, 1999). The age subgroups are found different regarding to psychographic, behavior, and other sociodemographic variables. For example, younger senior travelers (55-64) reported a conservation/protection attitude rather than the consumptive attitude reported by the older senior travelers. Older senior travelers were more likely to visit friends and relatives than younger senior travelers (Backman, Backman, & Silverberg, 1999). Hong, Kim, and Lee (1999) found from a study of three age subgroups: young-old (55-64), old (65-74), and very old (75+) that race, education, marital status, and economic factors determined the decision to travel (i.e., whether or not to travel), while age, health care expenditures, and household income were found significant in predicting tourism expenditure.

Age cycles were associated with the effect of the constraints on the number of vacation days (Fleischer and Pizam, 2002). In the first cycle (55-65), the number of vacation days was positively correlated with leisure time and household income; while in the next cycle (65+), declining incomes and deteriorating health were found to cause a decrease of the vacation length.

Different from the traditional categorization based on chronological or objective age, Muller and O'Cass (2001) focused on the subjective age of older adults. Measured in felt age and activities age, subjective age was recognized as a valuable segmentation tool. The young-at-heart seniors sought fun and enjoyment in life, traveled for physical stimulation and a sense of accomplishment, and had high expectations of their vacation trips. The subjectively older seniors, those less young at heart, were concerned about security and they tended to worry about having trouble with travel arrangements, getting hurt or being in danger, and becoming ill on vacation. They preferred traveling with a group of friends or with their family, which distinguished them from the young-at-heart seniors.

Gender. The travel behavior based on gender in the context of mature tourism research has been rarely studied (Lehto, O'Leary, & Lee, 2001). Lehto et al. (2001) identified significant differences between male and female mature travelers in terms of preferences for destination attributes and travel products and services. Women were more drawn to people-oriented activities than male travelers. Older female travelers were also found interested in long-haul travel in general; however, they had strong preferences for shorter duration trips. Issues, such as personal safety, package or guided tours, and availability of comprehensive tourist information, were highly important to female travelers. Older male travelers paid attention to the utility or functional aspects of a travel destination.

Employment Status. Blazey (1992) investigated the relationship between pre- and post-retirement status, as well as key issues related to older adult travel activity. Four separate analyses examined the relationship between retirement status and constraints to travel activity, use of various forms of travel information, travel characteristics, and participation in travel related activities. Retirees were likely to be constrained by health conditions, physical energy, perception of age, and disability.

A Posteriori (Data-Driven) Segmentation

As noted by Hsu and Lee (2002), a posteriori approach is most likely used based on psychographic variables, such as motivations, constraints, and perceived benefits. In contrast to priori segmentation, researchers have no prior knowledge of the desired travel market segments regarding travelers' psychographic characteristics. DM analytical tools are required to generate the market segments.

Gerontologists proposed that as people reached their mature stage of life, they became more preoccupied with self-utilization. Cleaver, Muller, Ruys, and Wei (1999) stressed the strategic usefulness of identifying travel-motive segments for tourism product development. Seven travel-motive segments were determined with factor analyses, namely, Nostalgics, Friendlies, Learners, Escapists, Thinkers, Status-Seekers, and Physicals.

You and O'Leary (1999) examined the diversity and heterogeneity of the older UK outbound travelers' market and segmented it based on travel push and pull factors. The older market was categorized into three distinct groups, namely, passive visitors, the enthusiastic go-getters, and the culture hounds. The three segments exhibit distinct differences in demographics as well as their destination participation patterns,

Related Content

Seamless Structured Knowledge Acquisition

Päivikki Parpola (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1720-1726).*

www.irma-international.org/chapter/seamless-structured-knowledge-acquisition/11050

DFM as a Conceptual Model for Data Warehouse

Matteo Golfarelli (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 638-645).*

www.irma-international.org/chapter/dfm-conceptual-model-data-warehouse/10888

Text Mining Methods for Hierarchical Document Indexing

Han-Joon Kim (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1957-1965).*

www.irma-international.org/chapter/text-mining-methods-hierarchical-document/11087

Mining Smart Card Data from an Urban Transit Network

Bruno Agard (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1292-1302).*

www.irma-international.org/chapter/mining-smart-card-data-urban/10989

Instance Selection

Huan Liu (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1041-1045).*

www.irma-international.org/chapter/instance-selection/10949