

## Understanding Canadian and US tourists: A self-concept based segmentation study

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### Abstract

This study aims to identify the distinctive market segments based on tourists' self-concept, gain a better understanding of U.S. and Canadian tourists' travel patterns, and provide implications that are beneficial to destination marketing organizations (DMOs). This study advances the knowledge of self-concept in the tourism context by validating its measurement and employing it as a segmentation base. This study used 2 percent of cases (N=1,012) of secondary data collected by an Ontario government agency, and a factor-cluster approach for analysis. Principal component analysis was utilized to identify specific characteristics of self-concept items and the results yielded three selves (extravert self, explorative self, and depressive self). Then, the study segmented U.S. and Canadian tourists by three self-concept factors and obtained four distinctive segments: Energetic Segment (ENT), Adventurous Segment (ADT), Conservative Segment (COT), and Escaping Segment (EST). ENT tourists are characterized as active, inquisitive and confident with a medium level of perceived value, satisfaction, and recommendation. ADT represents tourists who are older, open-minded, and optimistic with the highest level of perceived value, satisfaction, and recommendation. COT is relatively passive and had the lowest level of perceived value, satisfaction, and recommendation. EST is a group of nervous and stressful young female tourists who had a low level of perceived value and a medium degree of satisfaction and recommendation. This paper concludes with appropriate advertising and promotional strategies for the different segments.

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### Introduction

Self-concept and its related constructs, such as self-actualization, self-image, self-expression,

self-construal, and the like, have been widely used to explain consumer behaviour and various marketing phenomena (Zinkhan,

Haytko, & Ward, 1996). A relationship between who we are and what we do has been proposed (Belk, 1988), indicating that consumers tend to choose products/brands which are consistent with their self-concepts (Grubb & Grathwohl, 1967). Thus, self-concept—referring to an individual's opinions, feelings, perceptions, or attitudes (Sirgy, 1982)—has been employed in consumer behaviour literature to predict consumers' purchase behaviour.

The first effort to use self-concept in consumer behaviour can be traced back to the self-concept theory (Grubb & Grathwohl, 1967), which fundamentally examined the relationship between an individual's self-concept and the symbolic value of the goods he/she is going to buy. This work was extended by Sirgy (1982) through self-congruity, indicating that consumers tend to evaluate products/brands by matching the brand-user image with their self-concept. The congruity between products/brands' image and consumers' image was the focus of consumer behaviour research.

Self-concept has also been empirically tested and extended to some related areas, such as consumers' purchase intentions, brand evaluations, customer satisfaction and brand preference, and consumer attitudes and purchase processes (Ericksen, 1996; Graeff, 1996; Tsai, Chang, & Ho, 2015; Wu & Chan, 2011). For example, Wu and Chan (2011) investigated the influence of perceived service quality and self-concept on consumers' attitudes and purchase process using channel type (physical and Internet) as a segmentation variable. Their study found that if Internet stores intensify their service quality and understanding of a consumer's self-concept, positive results could be achieved in consumer attitude, purchase intention, and behaviour, and even in satisfaction and loyalty. Tsai et al.'s (2015) study examined the relationship among brand experiences, self-concept congruence, customer satisfaction, and brand preference, and found self-concept congruence exerts positive effects on customer satisfaction and brand preferences.

Even though the value of self-concept in consumer behaviour studies has been

recognized and cultivated, its application in tourism study is still under-researched (Beerli, Meneses, & Gil, 2007; Todd, 2001). Researchers have begun to recognize the significance of tourists' self-concept on tourism destination marketing (e.g., Beerli et al., 2007; Chon, 1992; Murphy, Benckendorff, & Moscardo, 2007; Sirgy, 1985; Sirgy & Su, 2000). For instance, Murphy et al. (2007) linked tourists' self-image to travel motivation, and destination- brand personality, and further predicted tourists' intentions to visit and their satisfaction with a visit. The study claimed that a high level of agreement between tourists' self-image and their perceptions of the destination was related to their satisfaction but not to their intentions to visit. Furthermore, Todd (2001) pointed out that the potential of self-concept in tourism context needs to be explored to understand how tourists feel and what they seek from tourism experience. Thus, the purpose of this paper was to apply self-concept theory in the tourism context and to understand how a tourism destination can benefit from this effort.

More specifically, the objectives of this study were threefold: First, this study aimed to advance the understanding of tourists' experience by applying self-concept, which helps to explain what exactly tourists are seeking. Through factor analysis, this study identified the existence of different types of self-concepts (three factors in the current study) among tourists. Second, this study aimed to validate the usefulness of self-concept on finding distinctiveness/effective ways of identifying market segments. This study verified the reliability and validity self-concept scale in the tourism context, as well as the applicability of self-concept as a segmentation base. Third, this study aimed to identify the distinctive characteristics of the salient segment. Based on the segments clustered using self-concept factors, tourists were further investigated by comparing their demographics, self-concept, and travel behaviour. This study then brought out the underlying travel patterns of North American tourists in the domestic Canadian tourism market and determined the extent to which different market segments could be identified through the application of self-concept. This study demonstrated the self-

concept based segmentation as an efficient and powerful market approach to distinguish the tourists and provide implications for appropriate advertising and promotional strategies.

## Literature Review

### *Segmentation Studies in Tourism Research*

Market segmentation is considered as "one of the most fundamental concepts to [in] modern marketing" (Wind, 1978, p. 317). The assumption of market segmentation is consumers are not homogeneous; thus, no single market strategy can satisfy all consumers. Marketers then segment consumers into different groups based on a set of variables or consumer characteristics (Havitz, Dimanche, & Bogle, 1994; Kara & Kaynak, 1997) to determine feasible segments and thence to provide attractive offerings for each segment.

Both marketing practitioners and academics have recognized the significance of market segmentation. Destination marketers have viewed tourist segmentation as a critical tool in destination development, as it yields valuable information about tourists and helps destinations to provide popular offerings. As indicated by Kotler, Brown, Adam, and Armstrong (2001), effective segmentation should be measurable, accessible, substantial, actionable and differentiable: (1) the size of a segment and the related purchasing power must be measurable, (2) the marketing entity should be able to reach and serve a segment effectively, (3) a segment must be vast and profitable enough to make it worthwhile to apply strategies, (4) a segment can be attracted by effective marketing strategies, and (5) a segment must respond differently to different marketing stimuli. In the academic field, researchers have identified two distinct approaches or criteria to market segmentation using a variety of variables. The two approaches are the a-priori approach and the data-driven approach (Dolnicar & Grun, 2008; Hanlan, Fuller, & Wilde, 2006; Wind, 1978). In the a-priori approach, researchers first choose variables of interest and then cluster customers accordingly (Wind, 1978); those factors can be age, gender, income, education, or nationality. In a data-driven approach, researchers select a

set of theoretically verified variables and then apply multivariate analyses. In the latter approach, usually analysis is conducted in three steps: (1) factor analysis of variables representing the features of consumers, (2) cluster analysis using the identified factors, and (3) Chi-square tests of homogeneity or ANOVA to compare the consumer features among groups (Petrick, 2005; Thurau, Carver, Mangun, Basman, & Bauer, 2007).

Variables for the data-driven approach have been categorized into several groups, including geographic, psychographic /lifestyle, benefits, usage, loyalty, image, situation, and behavioural factors (Hanlan et al., 2006). The dilemma of this approach is how to select the appropriate variables, as well as how to use the proper statistical techniques. Different variables have been employed as segment bases, such as travel motivations (Alexandris, Kouthouris, Funk, & Giovani, 2009; Assiouras, Skourtis, Koniordos, & Giannopoulos, 2015; Chen, Bao, & Huang, 2014; Oh, Uysal, & Weaver, 1995), satisfaction (Lee, 2015), ethnic identity (Chen, Wang, Lin, & Jiang, 2014), price sensitivity (Petrick, 2005), and self-concept (Todd, 2001). For instance, Assiouras et al. (2015) segmented East Asian tourists who visit Greece based on their travel motivations, wherein the authors identified eight motivation factors and three segments as the "Novelty Seekers," the "Want-it-All," and the "Lowly Motivated." Using tourist satisfaction with a forest recreation experience, Lee (2015) segmented Chinese mainland tourists into the "Higher-Satisfied," the "In-Betweeners," and the "Lower-Satisfied" groups, and found significant differences in age, education level, and monthly income among identified groups. However, only one known study (Todd, 2001) employed self-concept as a segment base in the tourism context. To advance this knowledge, the following section first discusses the theoretical root of using self-concept in the psychographic/lifestyle segment and explains how to use self-concept in a segmentation study.

### *Psychographic /Lifestyle Segmentation*

The psychographic /lifestyle segmentation provides the theoretical root of self-concept based segmentation. The psychographic

/lifestyle segmentation approach divides markets based on consumer values, attitudes, interests, and opinions (Hanlan et al. 2006). Consumer behaviour research has witnessed a growing emphasis on human behavioural sciences. This tendency sheds light on segmentation research seeking to measure intangible consumer characteristics such as lifestyle, personality, image, and self-concept (Alpert, 1972; Sirgy, 1982).

For example, Divine and Lepisto's study (2005) investigated the healthy-lifestyle consumers through a variety of variables, such as demographics, personal value, and psychological characteristics. The authors used cluster analysis to divide consumers into healthy and unhealthy/ unwholesome lifestyle segments and explored the associations between lifestyle and value antecedents. Results indicated that the healthy lifestyle consumers are more likely to be female, older, more educated tourists, who place less importance on the value of "excitement", and have a greater tendency to plan ahead and experience less role overload. In the tourism area, Muller's (1991) segmentation study of United States pleasure visitors to Toronto demonstrated that it is valuable to employ personal values as actionable guidelines in tourism market strategies. Specifically, based on visitors' perceived importance ratings of destination attributes, the authors classified three major segments of which each possessed a unique profile of personal value. For example, safety-conscious visitors, one of the segments, focus on the values of security, belonging, and being well respected. Thus, Muller (1991) argued that the destination markers should develop the products and themes satisfying the values of different segment visitors. Similarly, Iversen, Hem, and Mehmetoglu (2016) adopted a lifestyle segmentation approach to distinguish tourists based on their travel motives and cultural values. They classified three segments as the nature and novelty, the status, and the relaxation segment.

### *Self-Concept Segmentation*

Researchers call for more application of self-concept theory in tourism area (Bachman, Norman, Hopkins, & Brookover, 2016). The

self-concept segmentation is one example of psychographic /lifestyle segmentation. Self-concept refers to an individual's idea and feeling about him or herself (Sirgy, 1982). It is the "totality of the individual's thoughts and feelings having reference to himself as an object" (Rosenberg, 1979, p.7).

Todd (2001) believed that self-concept is a perfect variable for understanding how tourists feel and what they seek from the tourism experience. She employed self-concept to segment tourists into three clusters: (1) happy holidaymakers with the self-concept as relaxed, happy, confident, active, assertive, in control and busy, (2) striving tourists with the self-concept as nervous, anxious, potent, successful and emotional, and (3) holiday partners with the self-concept as unimportant, passive and powerless. She suggested that self-concept may provide an alternative segmentation base, and more research in this area is needed to investigate how individuals feel across different roles when they are travelling. Thus, this study used self-concept to segment tourists to enrich the empirical study in this area, as well as providing a validated method for segmentation study.

### **Methodology**

This study used a secondary data collected by an Ontario government agency in 2012. The survey was designed to provide a comprehensive overview of the key Canadian (Ontario, Quebec, and Manitoba) and U.S. markets. The data comprised over 300 attitudinal, behavioural and socio-demographic variables. The survey collected three overnight trips taken by the participants within the past 12 months. The final data set comprised 69,093 responses. This study focused on respondents who had taken at least one out-of-town trip in the last 12 months, generating 50,322 cases. The authors randomly selected about 2% of the sample (n=1,012) for analysis. As suggested by Comrey (1973), N=50 is considered as poor and N=1,000 as an excellent sample size for factor analysis. Besides, random sampling is also used by researchers to select a subset for data analysis. For example, when examining the characteristics of social activity and patterns of communication on Twitter, Naaman, Boase and Lai (2010) first identified 911 users,

and then randomly selected 350 users for analysis. Thus, the random selection of 1,012 cases followed an appropriate procedure for factor analysis in the current study.

The final data contained measurement scales assessing self-concept (24 items), perceived value/value for money (one item), satisfaction (one item), recommendation (one item), and demographic information. The variables were measured on a 10 Likert-type scale. The data analysis followed three steps including factor analysis, cluster analysis, and cross tabulations with chi-square analysis or ANOVA (Thurau et al., 2007) utilized in many tourism market segmentation studies. First, a frequency analysis was conducted to examine the profile of the respondents. Second, an exploratory factor analysis (EFA) with Varimax rotation was carried out to identify the underlying structure of [the] self-concept and the internal consistency was tested using Cronbach's alpha. Third, a K-means cluster analysis was employed to identify potential market segments. Finally, a chi-square analysis and ANOVA were utilized to explore the differences regarding demographic background and travel behaviour. SPSS 20.0 was used to obtain the empirical results.

**Findings**

*Demographic Profiles*

**Table 1. Sociodemographic Characteristics of the Study Respondents**

| Characteristics | Percent                 | (%)  |
|-----------------|-------------------------|------|
| Gender          | Male                    | 34.6 |
|                 | Female                  | 65.4 |
| Age             | 18-24                   | 3.9  |
|                 | 25-34                   | 11.5 |
|                 | 35-44                   | 14.5 |
|                 | 45-54                   | 20.9 |
|                 | 55-64                   | 23.3 |
|                 | 65+                     | 25.9 |
| Education       | High school or less     | 22.0 |
|                 | College diploma         | 39.1 |
|                 | University degree       | 26.7 |
|                 | Graduate degree or more | 11.7 |
|                 | Other or not stated     | 0.5  |
| Income          | <\$20,000               | 4.2  |
|                 | \$20,000-\$39,999       | 14.9 |
|                 | \$40,000-\$59,999       | 19.1 |
|                 | \$60,000-\$79,999       | 17.0 |
|                 | \$80,000-\$99,999       | 12.6 |
|                 | >\$100,000              | 22.2 |
|                 | Other or not stated     | 10.1 |

Overall, 1,012 respondents were selected for the data analysis. Table 1 describes their socio-demographic characteristics. The respondents were mainly female (65.4%), in the age group of 45 or above (70.1%), and well educated.

*Exploratory Factor Analysis*

The first step of the factor analysis entailed computing a correlation matrix to determine correlations among the 24 self-concept items. Variables with correlations below 0.4 in absolute value were deleted (Hedderston & Fisher, 1993; SPSS 10.0 Application Guide, 1999). Nine items were removed from the analysis, as they did not meet this threshold. The second step involved performing the factor analysis on the remaining 15 items to determine the underlying dimensions of [the] tourist self-concept. The factor analysis was found to be suitable since the KMO test was 0.851 and Bartlett's test was significant. To determine the dimensions of self-concept, principal component analysis with Varimax rotation was employed in EFA.

Two items were deleted due to low factor loadings (< 0.50) or high cross-loadings (> 0.50). Finally, 13 out of 24 items formed the development of tourist self-concept dimension, explaining 55.3% of the total variance. Table 2 demonstrates the results of EFA for self-

concept and the reliability test, including factor loading, eigenvalues, the percentage of variance, corrected item-to-total correlation, and reliability alpha. The reliability coefficients ranged from 0.659 to 0.788, which is around the traditionally acceptable level of 0.70, and higher than the minimum alpha of 0.6 (Hair, Black, Babin, Anderson, & Tatham, 2006). Most of the item-total correlations were above the cut-off point of 0.3, demonstrating satisfactory levels of internal consistency.

The three factors demonstrated three different types of tourist selves: extravert self, explorative self, and depressive self. The extravert self refers to active, socializing, outgoing, and adventurous characteristics, representing those tourists who want to be in the center of a group and who are eager to talk

and share the experience with others. The explorative self is concerned with optimistic, learning, open-mind, and curious characteristics, representing those tourists who are curious about new knowledge and pursue novelty during the trip. The depressive self corresponds with nervous, stressful, and repressive characteristics, representing those tourists who are persistently suffering during their daily life; thus, they wish to escape from their everyday burden.

*Cluster Analysis*

Cluster analysis is one of the most frequently used techniques in tourism market segmentation. Cluster analysis was employed to identify homogenous groups based on their self-concept, using the factor scores as input. K-means cluster analysis was conducted on all

**Table 2. The Exploratory Factor Analysis Results of Tourist Self-concept**

| Items  | Loading | Eigenvalue | Variance explained (%) | Cronbach's Alpha |
|--|---------|------------|------------------------|------------------|
| <b>Factor 1: Extravert Self</b>  |         | 4.384      | 33.719                 | 0.788            |
| I tend to be the life of the party   | 0.788   |            |                        |                  |
| I am more adventurous than most of my friends                                | 0.696   |            |                        |                  |
| I have many friends  | 0.689   |            |                        |                  |
| I'm usually the first among my friends to try something new                  | 0.632   |            |                        |                  |
| I am more physically active than most people                                 | 0.555   |            |                        |                  |
| I love to be spontaneous   | 0.553   |            |                        |                  |
| <b>Factor 2: Explorative Self</b>  |         | 1.675      | 12.884                 | 0.681            |
| I am completely open to diverse cultures, lifestyles and ideas               | 0.794   |            |                        |                  |
| I love the fine arts and high culture  | 0.686   |            |                        |                  |
| I am generally an optimistic person  | 0.534   |            |                        |                  |
| I consider myself youthful in spirit   | 0.526   |            |                        |                  |
| <b>Factor 3: Depressive Self</b>   |         | 1.133      | 8.717                  | 0.659            |
| My life is too stressful   | 0.849   |            |                        |                  |
| I never seem to have enough time to accomplish all I need to in a day        | 0.754   |            |                        |                  |
| I need to escape my everyday life from time to time and seek new experiences | 0.570   |            |                        |                  |

**Table 3. Cluster Analysis Results**

| Factor           | Segments |       |       |      |
|------------------|----------|-------|-------|------|
|                  | 1        | 2     | 3     | 4    |
| Extravert Self   | 0.95     | -0.26 | -0.91 | 0.12 |
| Explorative Self | -0.54    | 0.91  | -0.84 | 0.50 |
| Depressive Self  | -0.14    | -0.94 | 0.00  | 0.95 |

1,012 respondents to determine the best number of market segments while only 959 respondents were used, as cluster analysis automatically eliminates respondents who did not complete each of the self-concept questions. After several cluster solutions had been attempted (2–5), four market segments were identified (see Table 3). All three factors (extravert self, explorative self, and depressive self) identified in EFA were found to have a significant ( $p < .001$ ) contribution to the clustering process.

Multiple discriminant analysis (MDA) was conducted to determine if the three self-factors were well distinguished among the four segments. Tables 4 and 5 display a summary of the discriminant analysis, indicating that all three discriminant dimensions were statistically significant. A Wilks's lambda test and univariate F-test identified the significance of each of the

three self-factors. The canonical correlations for the dimensions were high (from 0.619 to 0.733) and significant. The results demonstrated that the model explains the significant relationship between the function and the dependent variables. Thus, based on the performance of the three factors, four segments of tourists were identified and named as segment 1—energetic tourists or ENT (26.0%), segment 2—adventurous tourists or ADT (23.1%), segment 3—conservative tourists or COT (24.1%), and segment 4—escaping tourists or EST (26.8%).

As shown in Table 6, the classification results demonstrate that the discriminant function performed well correctly in classifying the four segments. More specifically, 99.2% of EST were correctly classified, followed by ADT (98.2%), COT (97.8%), and ENT (96.4%).

**Table 4. Summary of Discriminant Analysis**

| Discriminant Function | Eigenvalue         | % of Variance | Canonical Correlation | Wilks' $\lambda$ | $\chi^2$ | df | Sig.  |
|-----------------------|--------------------|---------------|-----------------------|------------------|----------|----|-------|
| 1                     | 1.164 <sup>a</sup> | 42.7          | 0.733                 | 0.147            | 1832.380 | 9  | 0.000 |
| 2                     | 0.946 <sup>a</sup> | 34.6          | 0.697                 | 0.317            | 1095.498 | 4  | 0.000 |
| 3                     | 0.620 <sup>a</sup> | 22.7          | 0.619                 | 0.617            | 460.246  | 1  | 0.000 |

Note: a. The first 3 canonical discriminant functions were used in this analysis.

**Table 5. Discriminant Function Loadings: Functions at Group Centroids**

| Segment | Function |        |        |
|---------|----------|--------|--------|
|         | 1        | 2      | 3      |
| ENT     | 0.840    | 0.541  | -1.092 |
| ADT     | -1.928   | -0.091 | -0.254 |
| COT     | 0.619    | -1.586 | 0.304  |
| EST     | 0.295    | 0.981  | 1.004  |

Note: Unstandardized canonical discriminant functions evaluated at group means. ENT= energetic tourists, ADT= adventurous tourists, COT= conservative tourists, and EST= escaping tourists.

**Table 6. Classification Results**

| Segment        | Predicted Group Membership |             |             |             | Total |
|----------------|----------------------------|-------------|-------------|-------------|-------|
|                | 1                          | 2           | 3           | 4           |       |
| Segment 1: ENT | 240 (96.4%)                | 1 (0.4%)    | 0 (0.0%)    | 8 (3.2%)    | 249   |
| Segment 2: ADT | 1 (0.5%)                   | 218 (98.2%) | 0 (0.0%)    | 3 (1.4%)    | 222   |
| Segment 3: COT | 2 (0.9%)                   | 2 (0.9%)    | 226 (97.8%) | 1 (0.4%)    | 231   |
| Segment 4: EST | 0 (0.0%)                   | 2 (0.8%)    | 0 (0.0%)    | 255 (99.2%) | 257   |

Note: ENT= energetic tourists, ADT= adventurous tourists, COT= conservative tourists, and EST= escaping tourists.

To better understand how tourists of the four segments differently perceived themselves, the means of three self-concepts were calculated using raw item scores and compared among segments using ANOVA. The results showed that the three self-concept factors were significantly different from each other in four segments (See Table 7 for details). The Tukey HSD test revealed that significant differences on extravert self exist among all four segments (ENT>EST>ADT>COT). For explorative self, ADT and EST have significantly higher mean scores than the other two segments (ADT, EST>ENT>COT). There are also significant differences of depressive self among four segments (EST>ENT, COT>ADT).

ENT comprises 249 members and accounts for 26.0% of the sample. The tourists in this segment place a very high value on extravert self (M=6.70) and explorative self (M=6.41), indicating that they are very outgoing, optimistic, social, and explorative. They are most likely to enjoy the atmosphere of having many friends on the trip, and they always behave actively and socially in a group of people. They are also curious about exploring new culture, lifestyles, and ideas. They are full of energy during their trip; thus, they can find the time to meet people and socialize with friends as well as spend some time discovering and learning about a culture. The mean value of depressive self is medium (M=5.67) in this group, as generally, the ENTs are enthusiastic and joyful.

ADT comprises 222 members and accounts for 23.1% of the sample. The tourists in this segment place an extremely high value on explorative self (M =7.70) and a medium extravert self (M=5.41) while they place the

lowest value on the depressive self (M=4.56). They are very adventurous and highly motivated by the pull motivations, such as the desire to learn more about culture and arts. They view themselves as optimistic and youthful. They care less about making friends or participating in group activities during the trips. They do not suffer from the everyday life; instead, they commonly travel for self-improvement.

COT comprises 231 members and accounts for 24.1% of the sample. The tourists in this segment place the lowest value, below the average level, on both the extravert self (M=3.79) and the explorative self (M=4.89) and place a quite small value on the depressive self (M=5.33). They are very conservative and introverted. They would prefer to hide rather than express themselves verbally during the trip, as they feel a sense of insecurity during the voyage. These tourists do not have much desire to explore the new places they are visiting, and they tend to suffer somewhat from daily stressors.

EST has 257 members and accounts for 26.8% of the sample. The tourists in this segment scored relatively high on the three types of selves, obtaining the highest score on the depressive self (M=7.87) and medium-high scores on explorative self (M=7.51) and extravert self (M=6.15). They view themselves as depressive, stressful, and nervous, and they want to escape from the routine life. Travel affords ESTs the opportunities to do something different, such as exploring new places and making new friends.

*Chi-square Analysis and One-Way ANOVA*  
Demographic differences between the four

**Table 7. The Mean Differences of Three Self-Concept Variables among Four Segments**

| Variable/Segment | ENT               | ADT               | COT               | EST               | Total               |
|------------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| Extravert Self   | 6.70 <sup>a</sup> | 5.41 <sup>c</sup> | 3.79 <sup>d</sup> | 6.15 <sup>b</sup> | 5.55 <sup>***</sup> |
| Explorative Self | 6.41 <sup>b</sup> | 7.70 <sup>a</sup> | 4.89 <sup>c</sup> | 7.51 <sup>a</sup> | 6.64 <sup>***</sup> |
| Depressive Self  | 5.67 <sup>b</sup> | 4.56 <sup>c</sup> | 5.33 <sup>b</sup> | 7.87 <sup>a</sup> | 5.92 <sup>***</sup> |

Notes: a, b, c, and d indicate the significant differences in the mean values of the three selves in the four segments. Specifically, a>b>c>d and significant differences exist between a, b, c, and d; \*\*\*p<0.001. ENT= energetic tourists, ADT= adventurous tourists, COT= conservative tourists, and EST= escaping tourists.



segments were tested using crosstab analysis and the Pearson Chi-Square statistic (see Table 8). The Chi-square tests revealed significant differences among ENT, ADT, COT, and EST on the variables of gender, age and education, but no significant differences emerged in household income. Compared to the whole sample (65.4% of female), ENT had a relatively lower percentage of female (58.2%). They were also over the age of 45 (69.4%) and had at least college level education (70.2%). The ADT had a slightly lower percentage of female (61.7%) compared to the whole sample and were more likely to be over the age of 55 (67.6%) and to have a very high percentage of educational level from college to graduate degree (82.1 %). COT had a higher proportion of female (68.8%) compared to the whole sample, over the age of 45 (74.1%), and had a college or university level education (67.1%). EST comprised the highest percentage of females (75.1%), the highest proportion of individuals between the

ages of 25 to 54 (63%), and the highest percentage of people with a graduate degree (17.4%).

A one-way ANOVA was utilized to examine the significant differences in perceived value, satisfaction, and recommendation among the four segments (See Table 9), and the results indicated that the statically significant differences exist among all four segments on three key variables. In particular, the Turkey HSD analysis revealed that ADT has a significantly higher level of satisfaction and recommendation than COT. ADT has a significantly higher level of perceived value than COT and EST. Table 10 displays the general features of four segments on their demographics, self-concept, and travel behaviour.

**Discussion and Implications**

As an important marketing strategy, market segmentation divides the heterogeneous

**Table 8. Demographic Profile of the Four Segments**

| Characteristics     | ENT<br>(n=249)<br>% | ADT<br>(n=222)<br>% | COT<br>(n=231)<br>% | EST<br>(n=257)<br>% |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| Gender              |                     |                     |                     |                     |
| Male                | 41.8                | 38.3                | 31.2                | 24.9                |
| Female              | 58.2                | 61.7                | 68.8                | 75.1                |
| Age                 |                     |                     |                     |                     |
| 18-24               | 4.0                 | 1.4                 | 2.2                 | 8.2                 |
| 25-34               | 9.6                 | 5.9                 | 12.1                | 18.7                |
| 35-44               | 16.9                | 9.9                 | 11.7                | 20.2                |
| 45-54               | 23.3                | 15.3                | 20.8                | 24.1                |
| 55-64               | 20.1                | 32.9                | 24.7                | 17.9                |
| 65+                 | 26.1                | 34.7                | 28.6                | 10.9                |
| Education           |                     |                     |                     |                     |
| High school or less | 28.1                | 16.4                | 27.5                | 16.6                |
| College             | 42.1                | 37.2                | 36.0                | 40.3                |
| University degree   | 20.4                | 31.4                | 31.1                | 25.7                |
| Graduate degree     | 9.4                 | 14.5                | 4.5                 | 17.4                |
| Other or not stated | 0.0                 | 0.5                 | 0.9                 | 0.0                 |
| Household Income    |                     |                     |                     |                     |
| <\$20,000           | 3.3                 | 3.3                 | 4.3                 | 4.0                 |
| \$20,000-\$39,999   | 11.9                | 16.3                | 16.5                | 13.5                |
| \$40,000-\$59,999   | 20.2                | 17.7                | 18.3                | 18.7                |
| \$60,000-\$79,999   | 19.8                | 19.1                | 14.3                | 16.7                |
| \$80,000-\$99,999   | 11.9                | 10.2                | 13.9                | 15.9                |
| >\$100,000          | 24.3                | 23.7                | 17.8                | 23.4                |
| Other or not stated | 8.6                 | 9.8                 | 14.8                | 7.9                 |

Note: ENT= energetic tourists, ADT= adventurous tourists, COT= conservative tourists, and EST= escaping tourists. Chi-square and P value: gender ( $\chi^2 = 18.841, p < .001$ ), age ( $\chi^2 = 94.368, p < 0.001$ ), education ( $\chi^2 = 79.794, p < 0.001$ ), and household income ( $\chi^2 = 26.585, p > .05$ ).

market into homogenous market segments for a better understanding of customers' wants and needs. Through a data-driven approach, researchers employ various variables for market segmentation. This paper utilized self-concept, an under-explored construct in tourism research, to segment tourists and to explore their travel patterns. The use of self-concept is because it represents the individual's opinions and feelings, and it is a determinant of individual attitudes and behaviour. The theoretical basis of using self-concept as a segmentation tool can be traced to psychographic /lifestyle segmentation.

This study contributes to the understanding of tourists' experiences and knowledge of market segment. It contributes to the existing research on two aspects. To begin, even though self-concept and its related constructs have been studied in consumer behaviour research for decades in existing research, its study in tourism context is still very rare. This study responded to Todd's (2001) call that more studies on self-concepts are needed for

enhancing the understanding of how tourists feel and what they seek from the tourism experience. By applying self-concept, this study explored tourists' situational feelings during the trip; that is, they perceived who they are, what they do, and how they see themselves differently as presented by the identified three selves: the extravert self, the explorative self, and depressive self. This study contributes to the application of self-concept in tourism by displaying an understanding of how tourists perceived themselves during the trip.

Additionally, various constructs have been applied as segment tools in existing research, while the use of self-concept as a segment base is much less popular. This study extended the application of self-concept in segmentation research by validating its measurement and applicability through an empirical study using a factor cluster approach. First, factor analysis was employed to identify the underlying structure of tourist self-concept. The authors identified three self-factors as extravert self, explorative self, and depressive self. Second, a

**Table 9. The Mean Differences of Satisfaction, Perceived Value and Recommendation among Four Segments**

| Variable/Segment | ENT                | ADT               | COT               | EST                | Total  |
|------------------|--------------------|-------------------|-------------------|--------------------|--------|
| Satisfaction     | 8.75 <sup>ab</sup> | 9.04 <sup>a</sup> | 8.61 <sup>b</sup> | 8.72 <sup>ab</sup> | 8.78*  |
| Perceived Value  | 7.96 <sup>ab</sup> | 8.29 <sup>a</sup> | 7.77 <sup>b</sup> | 7.73 <sup>b</sup>  | 7.94** |
| Recommendation   | 8.29 <sup>ab</sup> | 8.54 <sup>a</sup> | 7.83 <sup>b</sup> | 8.24 <sup>ab</sup> | 8.23*  |

Note: a, ab, and b indicate the significant differences in the mean values of satisfaction, perceived value, and recommendation in the four segments. Specifically, a>ab>b and significant differences exist only between a and b. No significant differences were found between (1) a and ab, and (2) ab and b. \*p<0.05, \*\*p<0.01. ENT= energetic tourists, ADT= adventurous tourists, COT= conservative tourists, and EST= escaping tourists.

**Table 10. Four Segment Profile**

| Cluster | Demographics                                    | Self-Concept   | Travel Behaviour   |
|---------|---|--|--|
| ENT     | Over the age of 45, more college level          | Active, socialized, adventurous, friendly, confident | Medium satisfied, medium perceived value and recommendation        |
| ADT     | Over the age of 55, college or university level | Curious, open-mind, optimistic and youthful          | Highly satisfied, high perceived value and recommendation          |
| COT     | Over the age of 45, college or university level | Unimportant, passive, hide, peaceful                 | Lowly satisfied, lower perceived value and recommendation          |
| EST     | Younger females, college or university level    | Nervous, depressive, stressful                       | Medium satisfied, lower perceived value, and medium recommendation |

Note: ENT= Energetic tourists, ADT= Adventurous tourists, COT= Conservative tourists, and EST= Escaping tourists.

k-means cluster analysis using the identified three self-factors was employed to classify homogenous groups. After attempting several cluster solutions (2–5), four market segments were identified and named as energetic tourists (ENT), adventurous tourists (ADT), conservative tourists (COT), and escaping tourists (EST). Finally, Chi-square tests of homogeneity and ANOVA were utilized, and significant differences among groups were found for socio-demographics, satisfaction, perceived value, and individuals' willingness to recommend. This study sheds light on both segment study and self-concept research in tourism research. It contributes to the theoretical advancement in the field of segment study by introducing self-concept as a base to define segments. Moreover, it contributes to the reliability and validity test of self-concept by providing empirical evidence using a secondary data set.

This study also has several important strategy implications for destination marketing organizations (DMOs). The most meaningful value of market segments is the provision of particular strategies for effectively defined segments. The ENTs are more likely to be around the age of 45 and to have a higher proportion of male members compared to the average group. These tourists are more active, passionate, and energetic; they are welcoming to new people and searching for new scenery and culture. Marketers can thus consider offer activities which can provide interaction opportunities through watching and participating, as ENTs are looking for some group interaction during the trip. Programs or entertainments, such as festival events, sports activities, local community events, nightclubs, and parks/zoo/aquarium are optimal for the energetic tourists to connect with the world.

Even though they comprise the highest proportion of aged people (above age 55), the ADTs are the most motivated visitors to explore something different. They are optimistic and still consider themselves as youthful in spirit despite their actual age. Authentic experiences are more attractive to them, as they are completely open do diverse cultures, lifestyles, and ideas, and love the fine arts and high culture. They are willing to spend several days

in some under-developed cultural or natural destinations to engage themselves in the environment. DMOs should enhance the authenticity to provide ADT a lasting "mysteriousness" to explore, offering these tourists opportunities to participate in heritage tourism, community tourism, and ecotourism, for example.

The COTs are the most difficult to satisfy, as they scored very low on perceived value, on satisfaction, and on their intention to recommend. They are also tough to identify just from the demographic features since most features are quite average or in between compared to those of the other groups. They are quiet, introverted, and conservative people. They tend to enjoy isolation for the sake of security. DMOs can consider providing some safe, comfortable, and familiar activities for them that do not intrude much upon their personal thinking.

The ESTs are more likely to be younger, well-educated, and high-income females. They suffer most from the depressive self; they are eager for realization, and they are carefree. They desire pampering and resort life experiences. Furthermore, they scored high in both extravert self and explorative self. In addition to enjoying similar activities as the previous groups, the ESTs also favored shopping, spa, eating, festivals, resorts, and the like.

In conclusion, although this study offers valuable insights on tourist segmentation, it has some limitations. First, previous studies tended to utilize self-concept items developed based on Sirgy's definition (1982) of actual self-concept, social self-concept, ideal self-concept, and ideal social self-concept. However, this study used sentences describing an individual's thoughts and feelings during the trip instead of using fully grounded items from the literature. Future research should develop a more generalizable measurement of self-concept in tourism study. Another limitation concerns the use of secondary data. More empirical studies of self-concept are needed to achieve better reliability and validity. This paper highlights that one's self-concept can be a valid variable for segmentation, and the data-driven segment

can be employed to define/demarcate distinctive market segments in tourism.

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