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## Article

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## **The Psychographic and Behavioural Descriptors of Ecotourists at Capricorn District Municipality: Segmentation Study**

**Nheta Daniel Silent<sup>1</sup>, Tshipala Ndivhuwo<sup>2</sup>, Madzunya Tondani<sup>3</sup>**

**Abstract:** The investigation was carried out in the Capricorn District Municipality which has various ecotourism attractions in South Africa. The aim of the study was to identify the psychographic and behavioural descriptors of ecotourists within the district. Ecotourism service providers worldwide are confronted by the demands of the dynamic traveller. As such market segments need to be identified that can be satisfied by different marketing strategies with different products and services. This requires the incorporation of observable and unobservable classification which this study is established on. Factor analysis was employed in the study to determine the common preferences among ecotourists while cluster analysis was utilised to determine segments based on behavioural indices with ANOVA tests confirming the significance of the identified descriptors. Results revealed social action and nature-based escaped on preferred activities whereas, on underlying travel preferences, companionship, destination qualities, enriching and learning experiences, conservationist and relaxation were identified. Therefore, Entrepreneurs and marketing strategists should understand the current trends regarding ecotourists whilst tourism destination developers should easily align their plans with the present ecotourism trend. The market intelligence communicated by this study is invaluable to the district municipality's aim. The aim of becoming the best preferred ecotourism destination in the country will become a reality if such knowledge is applied.

**Keywords:** ecotourism; factor analysis; nature-based escape; spending patterns; unobservable classification

**JEL Classification:** O55; Z32

### **1. Introduction**

Ecotourism service providers worldwide are confronted by the demands of the dynamic traveller. As such market segments have been identified that can be satisfied by different marketing strategies with different services and products. (Zografos & Allcroft, 2007) With the increasing pressure on ecotourism service providers, a need to split the larger heterogeneous market into smaller homogeneous market groups was realised. Various ecotourists such as soft and hard ecotourists have been identified by a number of notable researchers such as Lindberg (1991) and Weaver (2002). However, the importance of ecotourism service providers to understand the visitor profiles that make up the different homogeneous groups is undeniable. There is a growing need to understand the ecotourist in the tourism industry convincingly. (Zografos & Allcroft, 2007)

Study areas of ecotourism are mainly concerned with the ecological impacts of wildlife viewing and community-based ecotourism and its definitions. (Weaver & Lawton, 2007) Despite the few reputable studies by Lindberg (1991), Kusler (1991), Wight (1996), Palacio and McCool (1997), Twynam and

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Robinson (1997) and Weaver (2002) that attempted to differentiate ecotourists into distinct segments, not much attention was given to a sound understanding of the ecotourist or ecolodge patron regarding specific destinations. Previous studies mainly focused on the socio-demographic characteristics and perceptions, with the aim to identify the “ideal” ecotourist. (Kwan et al., 2008; Deng & Li, 2015) This results in a huge disparity that affects ecotourism service providers inclusive of policy makers, destination developers as well as researchers. The lack of a unifying ecotourism segment description that befits a specific geopolitical area leaves much to be desired.

Considering these findings, it thus becomes desirable for service providers, policy makers inclusive of destination developers at CDM who lack sound market intelligence for identifying the likely ecotourist, to make use of the information communicated by studies such as with this case. As with any other business, there is a need for market research to be conducted to keep businesses competitive and up-to-date with today’s dynamic traveller. Market intelligence is important for the continuance of businesses; it provides marketers with an ability to influence consumer decisions and can only be achieved through comprehensive research. (Kwan et al., 2008; Tkaczynski et al., 2009) As this is a unique study relative to its geographical context, which sought to branch out from the usual “academic business”, a profound need to infuse the concepts of the New Environmental Paradigm, self-identification approach, the site- and activity-based approach and the motivation approach was deemed as creative and of value towards developing new knowledge. (Deng & Li, 2015) Despite the relative paucity of literature in understanding ecotourists likely to be found at CDM - which is a limiting factor -, this study will explicate on who the ecotourist is and reveal the psychographic and behavioural descriptors of ecotourists at Capricorn District Municipality (CDM).

## **2. Literature Review**

Typically, ecotourists have been identified by their involvement in ecotourism, and the simple participation of tourists in nature-based activities labels them as ecotourists. (Dey & Sarma, 2006; Kwan et al., 2010; Sheena, Mariapan & Aziz, 2015) However, the identification of ecotourists by their involvement in certain ecotourism activities carries the danger of misrepresenting the real ecotourist. (Deng & Li, 2015) This traditional concept disregarded identifying the core values of tourists’ for them to be referred to as ecotourists. Similarly, a number of tourism scholars have referred to ecotourists as nature-based tourists. (Mehmet, 2005; Perkins & Brown, 2012)

Prior research has assisted in comprehending the different categories that could be used in segmenting ecotourists, for example, the research of Laarman and Durst (1987) cited in Fennel (2015), Kwan, Eagles and Gebhardt (2010) and Tangeland (2011), all of whom made a distinction between hard nature tourists and soft nature tourists. Lindberg (1991) added to the typologies of Laarman and Durst (1987) by identifying hardcore nature tourists, mainstream nature tourists, casual nature tourists and dedicated nature tourists. Similarly, Blamey and Braithwaite (1997), Palacio and McCool (1997), Diamantis (1999) and Poupineau and Pouzadoux (2013) made developments to the existing typologies, resulting in the identification of new characteristics that shaped hard ecotourists, soft ecotourists and structured ecotourists.

Comprehending these existing typologies requires a certain level of understanding because they may require empirical data to support their existence at a particular destination. (Dey & Sarma, 2006) The setting of ecotourist-definition parameters within the framework of predetermined typologies without considering new findings could result in a prejudiced view of the ecotourist. Therefore, the typologies

should act as a general platform that may be used in market segmentation. When profiling visitors, a researcher should not be limited to conforming to the characteristics and traits displayed by the existing typologies. Destinations have unique aspects that attract different travellers with different motives and needs. (Dey & Sarma, 2006) Consequently, applying a universal definition and universal characteristics of an ecotourist to the different visitor profiles of destinations becomes an arduous task. However, some notable definitions and characteristics of ecotourists have been put forward that could act as a framework for compiling visitors' profiles at a particular destination.

Wedel and Kamakura (2012) specify two classifications that create a foundation for all other segmenting bases to be developed. The foundation has observable and unobservable classifications. Regarding the observable classification, geographic, demographic, socio-economic and cultural aspects are identified within the scope. The unobservable classification, which is mainly used in targeting a special market segment, comprises psychographic and behavioural aspects. Distinctively this study's discussions are thereby derived from the unobservable classifications as the aim of the study is to identify and understand the unobservable attributes of ecotourists at CDM.

### **2.1. Psychographic Segmentation**

Psychographic segmentation creates a better competitive advantage for the tourism service providers since they become knowledgeable on the purchasing patterns of the consumers. Brassington and Pettitt (1997) cited in Mostofa (2012) and Kamarulzaman and Abu (2012) define psychographic segmentation as a base that focuses on a customer's emotional state and the benefits that the customer may receive, thus splitting the market by means of how people think. It is simple for the organisation to create advertisements that will positively influence the decision-making of customers if the customer's expected benefits are known. (Yankelovich & Meer, 2006; Lynn, 2011; Mazurek, 2014)

The segmentation criteria focus on the consumer's lifestyle, personality and even social class. (Dey & Sarma, 2006; Sikarwar & Verma, 2012) Srihadi, Sukundar and Soehadi (2016) highlight that lifestyle attributes are more favourable and plausible for segmenting travellers than the common approach of demographic grouping. Furthermore, Du Toit et al (2012) identified aggressiveness, conservation, optimism, progressiveness and materialism as possible personality traits of individuals. These create a common platform that can be used to group consumers based on similar personality traits. (Mazurek, 2014) Values of the potential consumers can, therefore, be determined (George, 2014). There are five evolving possible groups of tourists that can be distinguished by personality traits: allocentric, near allocentric, midcentric, near psychocentric and psychocentric. (George, Henthorne & Williams, 2013) However, this study will focus on Plog's (1984) cited in George (2014) type of tourists Psychocentrics can be associated with soft ecotourism because they are fairly unadventurous and prefer routine services and well-organised tours. Allocentrics can be associated with hard ecotourism since they prefer out-going activities and visiting pristine environments while taking independent trips. The identification of ecotourist typologies, therefore, includes a sound psychographic segmentation process together with an understanding of the ecotourists' preferences and motivations.

Tourists may become less predictable and buying habits may change, and those with a basic education may become more affluent and price conscious. Resultantly, purchasing patterns will no longer be in line with factors such as age or income. This results in demographic segmentation being unable to provide the relevant input for decision-makers if used alone. (Tkaczynski, Rundle-Thiele & Prebensen, 2015) Understanding the needs and values of tourists at this level by marketers and service providers is crucial in linking their services to the right market segment. Psychographic segmentation provides decision makers with detailed information that can assist in understanding customer changes,

thereby stimulating product innovation, suitable pricing and distribution channels directed at the target market. (Tkaczynski et al., 2015) The service providers are then able to provide the necessary facilities for the potential consumer at satisfactory levels, consequently encouraging repeat visits that in turn, boost tourism activities in the destination area. Lifestyle variables comprise activities, interests and opinions. (AIO) (Du Toit et al., 2012; George, 2014) They are closely related to personal traits, which reflect the lifestyle of the consumer. (Cini, Leone & Passafaro, 2012) This area is of momentous value to destination developers because the AIOs determine the choice of destination of the traveller. Hence, psychographic segmentation may assist in providing services that are aligned with the activities sought by consumers based on their interests and opinions.

Despite the main influence of social class being income, which can also be used for segmentation, an individual's perception may influence the level of social class with which the consumer is associated. (Kamarulzaman & Abu, 2012) Psychographic attributes such as lifestyle help in identifying the way people live. They are useful in comprehending consumers despite differences in culture. (Srihadi, Sukundar & Soehadi, 2016) To a great extent, lifestyle influences consumer choices over products or services used and even attractions or destinations visited. (Fuller & Matzler, 2008)

## **2.2. Behavioural Segmentation**

Behavioural segmentation is defined as the distinction of sub-groups based on their knowledge or attitudes towards a product or service. (Lamb et al., 2011; Lynn, 2011) A thorough understanding of behavioural segmentation can be achieved if factors such as usage rate, brand familiarity, benefits sought, perceptions, beliefs and purchase occasion are incorporated for segmentation purposes. (Sikarwar & Verma, 2012) In tourism, frequent-flyer programmes are used to promote repeat visits. These originate from the usage rates of customers monitored by the service providers. Such programmes are useful in targeting promotional material to responsive consumers. Therefore, marketers have noted the need to include usage rate as a guiding factor in segmenting the market. Usage rate helps to identify former users, potential users, first-time users and heavy users. (Lamb et al., 2011) Ecotourists can be subdivided based on their behavioural patterns. These patterns include products they regularly purchase, services they often use and activities in which they participate, and these can be used in differentiating heavy users from irregular users. (Sikarwar & Verma, 2012; Erasmus, Strydom & Rudansky-Kloppers, 2013) Behavioural segmentation criteria can differentiate active ecotourists from passive ecotourists. (Dey & Sarma, 2006) Such behavioural patterns can, therefore, be used to develop customer profiles of different types of ecotourists.

It is thus important to evaluate the purchasing patterns of ecotourists. In addition, an evaluation of the usage rate of ecotourism products should be conducted. The segmentation criteria based on behavioural aspects have considerable relevance to the tourism industry. They allow the identification of products and services regularly purchased. This inherently leads the service provider to provide the regularly purchased offerings satisfactorily. If needed, organisational resources may be invested in the improvement of the products and services so as to enhance product attractiveness and ensure repeat purchases. Relatedly, ecotourism products are relatively expensive, which incurs the factor of price sensitivity. Previous studies highlighted ecotourists as having a higher income, which could imply that ecotourists are price insensitive. However, recent studies such as those by Adamu, Yacob, Radam, Hashim and Adam (2015) and Kaffashi, Yacob, Clark, Radam and Mamat (2015) reveal a need to understand clearly the willingness of ecotourists to spend more money for ecotourism products. This emphasises the importance for marketers to consider price sensitivity as a significant factor in the

behavioural segmentation of ecotourists. Such behavioural patterns can, therefore, be used to profile different types of ecotourists, which is useful for marketing purposes.

### **3. Methodology**

Capricorn District Municipality has five local municipalities. The five are; Aganang and Lepelle-Nkumpi local municipalities which have accommodation facilities that provide an environmentally friendly atmosphere, while nature reserves are located within the Blouberg Local Municipality. In Molemole Local Municipality, a number of wildlife experiences are available such as those offered by the Marlothii Bush Camp at the farm Dedimus in the district of Dendron. The Polokwane area offers a number of attractions, including the Turfloop Nature Reserve and the Ribolla Open Africa Route as well as informative art museums, cultural villages and walking safaris. (Limpopo Tourism Agency, 2016)

The study population consisted of tourists and visitors found within Capricorn District Municipality. Establishments and attractions were purposively selected from each of the local municipalities under Capricorn District in an attempt to cover a wider area and thus obtain a fair representation of the population. A sample of 295 participants selected by convenience sampling was used for the study. A survey questionnaire consisting of three sections; Section A – preferences, Section B – Responsible behavioural indicators and Section C – demographics was developed for the study. Preferences were measured by 12 closed-ended questions whilst 16 Likert scale questions on a scale of 1 – 4 (with 1 representing not important and 4 representing very important) were used in determining the choice of activities. Responsible behavioural indicators were measured by another set of 20 Likert scale questions. The scale ranged from 1 – 4 with 1 representing strongly disagree and 4 representing strongly agree whilst the demographics section consisted of 11 closed-ended questions.

Factor analysis and Cluster analysis were applied for data analysis of the study. With factor analysis, two constructs of interests were used to conduct the Principal Component Analysis (PCA). The analysis determined the preferences on ecotourism activities by ecotourists and the behavioural descriptors applicable to ecotourists. In particular, PCA was conducted on both preferences and responsible descriptors using Varimax with Kaiser Normalisation rotation method. (Field, 2009) Only cases that indicated “Yes” on being an ecotourist were used for this analysis. This was done in an attempt to segment the listed cases based on ecotourists’ preferences.

Cluster analysis is a technique that groups similar entities together aiming to provide a class structure from a data set. (Renato & Christian, 2015) This was done so as to realise the possible clusters constructed on similarities between responses at the same time identifying the main behavioural indicators of ecotourists at CDM. The significance of the items constituting the cluster was confirmed by ANOVA test.

### **4. Results and Discussion**

#### **4.1. Respondents’ Description**

A response rate of 84% was achieved, totalling 295 usable questionnaires from 350 questionnaires distributed. Of the respondents, 63% were female while the dominant age group was that of 35 years and above. Most subjects were from the black ethnic group which comprised 76%. Regarding education status, 47% of the respondents had a postgraduate qualification while 53% indicated as

employed. The marital status category comprised 51% married and 40% single. As for household types, married with children type had a representation of 31% while a single person type comprised 25%. Of the participants, South Africans constituted 97% with the most respondents of 55% originating from Limpopo province.

#### 4.2. Factor Analysis on Psychographic Attributes Based on Choice of Activities

A factor analysis on psychographic attributes was conducted to address the objective of identifying psychographic descriptors applicable to ecotourists based on choice of activities. This was done by identifying the inherent and preferred activities of ecotourists at destinations. Before factor analysis was conducted, tests for the measurement of internal consistency and inter-correlation values on items under responsible ecotourism activities and responsible behavioural descriptors were conducted, resultantly dropping out inconsistent items from further analysis.

For preferred ecotourist activities, the Kaiser-Meyer-Olkin (KMO) confirmed the sampling adequacy for the analysis. KMO value was 0.780 and Bartlett's test of Sphericity reported a value of 1153.091 making it significant for Principal Component Analysis. Factors with an Eigen value greater than 1 were extracted with factor loadings that had an absolute value below 0.4 being suppressed. Three items were dropped from the analysis as they had little correlation with other items. Table 1 indicates the emergence of two components that explained 63% of the total variance.

**Table 1. Two factor structure for ecotourism activities**

Item	Component		Communalities
	Social action	Nature based escape	
River-rafting	.887		.796
Mountain biking	.847		.721
Canoeing	.834		.723
Fishing	.806		.664
Motorcycling	.790		.626
Guided game drives	.726		.617
Nature photography		.830	.703
4x4 trails		.821	.738
Hiking trails		.774	.619
Type of accommodation		.760	.586
Picnic sites		.704	.522
Back-pack trails		.665	.687
Cronbach's Alpha	.898	.838	
Eigen values	5.158	2.983	
% of variance	39.673	22.943	
Total variance	39.673	62.616	
a. Only cases for which Ecotourist = Yes are used in the analysis phase.			
b. The criteria were based on 4-point Likert scale ranging from 1 (Not important) to 4 (very important).			

The two identified factors in Table 1 had Cronbach's alpha coefficients of .898 and .838 respectively. The indicated coefficients were interpreted as good, with Factor 1 closely reaching the excellent level of interpretation. This made it possible to analyse and interpret the two identified factors that are described in Table 2.

**Table 2. Two Factor description**

Factor no:	Name of factor	% of variance	Factor description
1	Social action	40%	Factor 1 consisted of activities such as river rafting, mountain biking, canoeing and fishing, with factor loadings greater than .800. The ecotourists prefer destinations that provide physically engaging activities that allow them to discover their stamina. Most of the identified activities are high-adrenaline boosters and, therefore, ecotourists participating in such activities generally have high levels of exploration. Therefore, destinations that satisfactorily provide the mentioned activities have a better competitive advantage.
2	Nature-based escape	23%	Activities with factor loadings greater than .800 were nature photography and 4x4 trails. This indicates that ecotourists who are oriented towards nature-based escape would opt for destinations that provide opportunities to participate in such activities. As indicated by the factor loadings, ecotourists preferring the indicated activities are associated with the need to seek relaxation. They prefer activities that are mentally relaxing such as the symbiotic engagements with the natural environment that can be achieved by participating in hiking trails.

#### 4.3. Factor Analysis of Behavioural and Psychographic Descriptors Based on Viewpoint

A second factor analysis was conducted to address the objectives of (i) identifying behavioural descriptors and certain psychographic descriptors that are applicable to ecotourists based on ecotourist's viewpoint; and (ii) establishing the forms of marketing information used by ecotourists. The section also answers the research question regarding what determines ecotourists' participation in ecotourism. The results are indicated in Table 3. Cases that met the condition of "Yes" to being an ecotourist were used in this analysis in an attempt to categorise the 20 cases being analysed. One item was excluded from further analysis because it had little correlation with the other items. The KMO and Bartlett's test resulted in values of 0.682 and 1408.054 respectively, thus justifying the use of Principal Component Analysis.

**Table 3. Five factor structure for behavioural descriptors**

Item	Component					Communalities
	1	2	3	4	5	
I travel in a group	.750					.672
I travel with family	.701					.670
I am willing to spend a portion of the travel cost on protecting the environment	.642					.605
I use friends and family to provide information before travelling	.524					.441
I have a precise idea of where I want to go		.895				.834
I am pulled to a destination because of its attractions		.630				.663
I try to learn and understand the destination environment		.595				.594
I use the internet, social media or blogs for information before travelling		.580				.624
Ecotourism is expensive			.774			.700
I always choose eco-tour operators			.704			.668
I travel to meet other people and share culture			.597			.632
I visit natural areas			.587			.658
I use green products			.561			.762
I am a responsible traveller				.772		.665
I conserve the environment				.756		.627
I arrange my own travel					.833	.740
I improve the well-being of local people					.705	.621
I travel to relieve stress and escape from crowds					.559	.625
Green attitude is important to me					.474	.568



I travel as a couple					.429	.432
Cronbach's Alpha	.650	.750	.742	.755	.727	
Eigen Values	5.866	2.367	1.805	1.438	1.328	
% of variance	29.328	11.836	9.023	7.188	6.642	
Total variance	29.328	41.164	50.186	57.374	64.016	
a. Only cases for which Ecotourist = Yes are used in the analysis phase. b. The criteria were based on 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree).						

Five factors were limited for extraction. Cronbach's Alpha coefficients were acceptable with factor 2 – factor 5 having .750, .742, .755 and .727 respectively while the coefficient for factor 1 (.650) was interpreted as questionable. The five factors from factor 1 to factor 5 were categorised as companionship, destination qualities, enriching and learning experience, conservationist; and relaxation correspondingly. Each factor is presented next in Table 4.

**Table 4. Five factor description**

Factor no:	Name of factor	% of variance	Factor description
1	Companionship	29%	Factor 1 comprises travel that is mainly in groups with known people such as family and friends in order to seek relaxation while escaping everyday life. The ecotourist is comfortable around familiar faces and seeks company for the entire period of stay. The individual makes use of 'word-of-mouth' sources such as close friends and family members. The ecotourist is also willing to spend more on protecting and conserving the environment.
2	Destination qualities	12%	An important item was having knowledge of the destination to be visited. Additionally, the attractions at the destination were indicated as an important attribute. Since the ecotourist is particular about the services and attractions available at the destination, the selection of the destination is based upon the ability and potential of the destination characteristics and services to meet the needs of the respective ecotourist.
3	Enriching and learning experiences	9%	Factor 3 clarified the options of choosing natural attractions and ecotourism services that provide learning experiences such as acquiring knowledge of other cultures. The ecotourist selects destinations that create or provide opportunities to learn about various experiences that inherently enrich and improve one's knowledge.
4	Conservationist	7%	Being a responsible traveller and conserving the environment had similar factor loadings. The ecotourist values the protection of biodiversity and chooses to travel to destinations that will foster or enable the conservation of attractions. The ecotourist is mindful of actions that may harm the environment or disrupt the natural composition of cultural attractions.
5	Relaxation	7%	Arranging one's own travel itinerary offers peace of mind since the individual is assured that he/she has catered for all needs and is also aware of needs that may not be met during the trip. Other items included in this factor that indicated a high factor loading were relief from stress and improvement in the well-being of the local people. These are likely to improve the mindset and self-actualisation of the ecotourist.

#### 4.4. Cluster Analysis

The cluster analysis was conducted so as to identify the main behavioural indicators of ecotourists visiting CDM. It should be noted that high F values and statistically significant values were used to determine the most important attributes among the clusters with non-significant attributes being dropped from interpretations.

**Table 5. Cluster analysis on preferences and behavioural indicators**

VARIABLE	CLUSTER			ANOVA		
	1	2	3	df	F	P-value
<i>N of ecotourists</i>	51	35	55			
	Preferences and behavioural indicators					
<i>Purpose</i>	3	3	4	2	48.681	.000
<i>Accommodation</i>	5	3	4	2	5.337	.005
<i>Spending</i>	2	1	3	2	12.543	.000
<i>Length</i>	1	2	3	2	4.188	.016
<i>Period</i>	1	3	2	2	7.911	.001
<i>Month</i>	2	12	12	2	22.946	.000

#### Cluster 1 = *Moderate spenders*

This cluster was identified as the most dissimilar cluster and consisted of average spenders who made use of lodges for accommodation, spent an average of one day at the destination and spent between R5 000 and R10 000. This cohort was observed to have been active in ecotourism for a period not exceeding two years. The purpose of travelling and participating in ecotourism activities was based on cultural motivations. The moderate spenders indicated the month of February as their peak season for travelling. However, this cluster only portrayed the capacity to travel within the destination as indicated by the number of days spent and hence demonstrated the minimal potential to cause positive and significant spill-over effects into the surrounding communities.

#### Cluster 2 = *Minor spenders*

This cluster contained the least number of ecotourists and consisted of those who spent less than R5 000 at the destination and stayed for approximately two to three days. These ecotourists used guesthouses for accommodation and preferred travelling in December. The cluster comprised individuals who have been active ecotourists for about five to ten years and are interested in attending cultural activities, preferably for exposure and learning opportunities.

#### Cluster 3 = *Heavy spenders*

This cluster consisted of the majority of ecotourists and comprised heavy spenders who spent between R10 000 and R15 0000 at the destination, stayed in hotels for approximately four to five days and were interested in exhibitions. Those who were observed to have been active in ecotourism for about two to four years dominated the group and they preferred travelling in December. This cluster can create positive spill-over effects into surrounding communities since these ecotourists tend to travel extensively within and outside the destination during their visitor stay. This is observed by the intent to visit several natural attractions such as the Kruger National Park and the Polokwane Bird Sanctuary.

## 5. Discussions

### 5.1. Psychographic Descriptors

The results of the study indicated *social action* and *nature-based escape* as psychographic descriptors for ecotourists. Likewise, Walters and Ruhanen (2015) indicated social action and nature-based escape as important motivations and reasons to participate in ecotourism. Jang and Wu (2006) indicated the same psychographic attributes. Du Toit et al (2012) identified psychographic attributes such as aggressiveness and conservation, which are in line with this study's findings. Hence, it is reasonable to accept the indicated psychographic descriptors identified in this study. The study,

therefore, proposes that individuals who seek the aggressiveness attribute tend to prefer social activities that involve physical activities such as those indicated in the social-action descriptor of in this study. Holden and Sparrowhawk (2002) classify such individuals as hard ecotourists. The conservation attribute is associated with individuals who pursue relaxation and learning, thus relating to soft ecotourists and associating with ecotourists seeking a nature-based escape experience.

The results of this study show that ecotourists seeking social action prefer destinations that offer activities such as river rafting, mountain biking, canoeing, fishing, motorcycling and guided game drives. The ecotourists that seek a nature-based escape consider nature photography, 4x4 trails, hiking trails, backpack trails, picnic sites and type of accommodation to be of significant value in satisfying their needs.

Despite the arduous task of attempting to generalise ecotourists' descriptions, Sheena et al (2015) indicated similar traits in ecotourists seeking to connect with the natural surroundings. Likewise, Walters and Ruhanen (2015) identified related traits falling under relatively common constructs in a study that attempted to identify viable visitor segments for climate-affected Alpine destinations. Therefore, this study concludes that ecotourists found in the Capricorn District Municipality have a spectrum of favoured activities in which to participate, with social-action and nature-based escape activities being the most preferred.

Psychographic attributes influence the choice of destination and considering this, *destination quality* is another psychographic descriptor identified and accepted in this study. Likewise, Walters and Ruhanen (2015) identified a similar descriptor as reliable in recognising ecotourists. This study, therefore, suggests that ecotourists in the Capricorn District Municipality choose their destination because they have precise knowledge of where they are going, are aware of the availability of preferred attractions or are simply willing to learn and understand the destination. This outlines why destination quality as a descriptor is important in identifying ecotourists in the Capricorn District Municipality.

Additionally, the study results indicated *relaxation* as a psychographic descriptor that was accepted by this study for recognising and identifying ecotourists. As identified in the study's findings, ecotourists seeking relaxation prefer to arrange their own travel, and they travel to relieve stress and are willing to improve the well-being of local people. Relaxation as a psychographic attribute has been identified in many studies such as that of Jones and Lalley (2013). However, in their study, the attribute was linked to ecotourists seeking relaxation through game viewing (Jones & Lalley, 2013) whereas in the findings of Walters and Ruhanen (2015), relaxation was associated with romantic getaways. The current study, therefore, suggests that ecotourists in the Capricorn District Municipality have a diverse way of relaxing compared with the ecotourists described by Jones and Lalley (2013) who were visiting and staying at the lodges surrounding the Kruger National Park. This outlines the fact that destinations are indeed unique and attract different types of ecotourists, making the descriptor relaxation important in identifying ecotourists in the Capricorn District Municipality.

Furthermore, *compassion* as a psychographic attribute was identified in this study. Compassion was termed by Walters and Ruhanen (2015) as family friendly while Srihadi et al. (2016) considered it as travel companionship; in both cases, the descriptor was identified as important in identifying ecotourists. A common ground in these findings is seeking comfort in a group of people at a destination that offers the experience of relaxation inducing compassion among the group. This was also identified in a number of other studies such as those by Dey and Sarma (2006), Kwan et al (2010)

and Weaver and Lawton (2016), thereby making the compassion descriptor acceptable in identifying and recognising the ecotourists in the Capricorn District Municipality.

Lastly, the study recognised *enriching and learning* as a psychographic descriptor. The acceptance of the descriptor was derived from Saayman, Slabbert and Van der Merwe (2009) who likewise identified enriching and learning as an important descriptor in motivating ecotourists to participate in ecotourism activities. However, the need to learn and enrich one's knowledge was identified earlier by Huang and Xiao (2000) and Lee, Lee and Wicks (2004), which strengthened the reason to accept the descriptor as applicable to ecotourists visiting the Capricorn District Municipality. The study, therefore, suggests that ecotourists prefer destinations that offer enabling environments for learning and enriching oneself. Correspondingly, the findings in this study highlighted alike traits with regard to enriching and learning. This presents service providers with a better perspective on what ecotourists may regard as an ecotourism product; the product should facilitate enriching and learning experiences for the ecotourist.

## 5.2. Behavioural Descriptors

Specific behavioural descriptors such as *responsible behaviour* and the *act to conserve the environment* were identified for ecotourists visiting the Capricorn District Municipality. In the findings of Zografos and Allcroft (2007), behavioural descriptors such as responsible behaviour were associated with individuals who place a high value on biodiversity preservation. Relatedly, Van der Merwe and Saayman (2008) and Saayman and Saayman (2009) identified the motives behind travelling to conservation areas, and these included seeking a natural setting, activities at the destination, escape, photography and family socialisation. Therefore, this study suggests that ecotourists visiting the Capricorn District Municipality are responsible, conserve the environment and place a high value on conservation and preservation of the natural environment.

The attribute trend of travelling indicated the travelling patterns of ecotourists. This attribute was seen as necessary in identifying ecotourists. It was observed that ecotourists in the Capricorn District Municipality are mainly characterised by *travelling twice per year*. The findings indicated that ecotourists travel every six months, which means taking a holiday or business trip twice a year. The ecotourists indicated *spending R15 000 at most* for the trip. This spending occurred within the destination although the ecotourists indicated the intent to visit attractions beyond the study area. These two aforementioned attributes lack substantial literature from previous studies to make reasonable comparisons.

Other descriptors identified were derived from the length of stay, the month travelled and the type of accommodation used. The study findings indicated a *4- to 5-day trip* for most ecotourists, with the month of travel being *December*. The most-used accommodation type was the *hotel*. These descriptors have not been addressed by many researchers in their studies on segmenting ecotourists based on behavioural attributes. Loyalty points and special patron packages are becoming common with modernised accommodation establishments. Loyalty points may be gained through repeat visits and long stays and in this case, the research findings will be of value since it will be simple to segment guests based on their usage rate. (Sikarwar & Verma, 2012) The current study thus endorses the identified descriptors as suitable for ecotourist identification purposes.

Based on the identified behavioural descriptors, segmentation can effectively be conducted, identifying active ecotourists and passive ecotourists. (Dey & Sarma, 2006) Such behavioural patterns can subsequently be used to develop customer profiles. (Erasmus et al., 2013) The mentioned descriptors were identified from the most lucrative cluster of the heavy spenders

## 6. Conclusions

The psychographic attributes observed in the study indicated social action and nature-based escape as the categories regarding activities for ecotourists. These categories have similarities to allocentrics and psychocentrics respectively. Additionally, companionship, destination qualities, enriching and learning experiences, conservation and relaxation were noted as important factors that determined the values and attitudes of ecotourists in the Capricorn District Municipality. Concerning behavioural attributes, heavy spenders, moderate spenders and minor spenders were identified.

Many ecotourism studies such as those of Weaver (2002) and Weaver and Lawton (2002) use psychographic attributes to categorise ecotourists and identify the ecotourist profile. This study went further and merged the psychographic attributes and behavioural descriptors in an attempt to identify the most important differences among ecotourists visiting the Capricorn District Municipality. This resulted in three clusters being identified that could provide additional information with regard to targeting other ecotourist profiles. For advancement in the ecotourism market, only the lucrative cluster - heavy spenders - (the dominating cluster in terms of population) is recommended and prescribed to ecotourism service providers at CDM. This will alleviate some of the possible challenges CDM policy makers and destination developers might encounter in the course of making the district the most preferred ecotourism destination. Simultaneously, public and private entity resources will consciously be re-organised and channelled towards effectual programmes thereby, positively positioning the district on the map resultantly bringing new grounds for academic investigations.

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