

*Full Length Research Paper*

# Who are the South African hunters and why do they hunt?

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The literature indicates that wildlife tourism has become a major draw card for many countries. This is also true for South Africa where wildlife tourism forms the cornerstone of the South African tourism industry. Wildlife tourism activities can be classified into two main groups: non-consumptive (viewing and photographing of wild animals) and consumptive (such as hunting and fishing). Although hunting is one of the major contributors to wildlife tourism in South Africa little is known about the hunters themselves. Therefore the aim of this article is to understand the reasons why South African hunters hunt and to identify specific clusters. In order to achieve the above, a web-based survey conducted on the SA Hunters' website was used, which afforded respondents the opportunity to complete and return the questionnaire electronically. A total of 344 (n) completed questionnaires were received. The results revealed seven travel motives why South African hunters hunt, namely: for educational purposes, culture and heritage, family togetherness, nature experience, adventure, wildlife meat products and spiritual reasons. In addition three clusters or markets were identified.

**Key words:** Hunting, Biltong hunting, wildlife-based tourism, travel motives, market segmentation, cluster analysis.

## INTRODUCTION

Wildlife tourism products such as game farm tourism are recognised as one of the cornerstones of South Africa's wildlife tourism industry and have indicated extraordinary growth over the last 50 years (Reilly et al., 2003; Bauer and Herr, 2004). In the late 1990s, Reynolds and Braithwaite (2001) stated that 'tourism based upon wildlife [wildlife tourism] has become the leading foreign exchange earner in several countries'. Wildlife tourism is defined as 'tourism that is based on encounters with non-domesticated animals and the encounters can occur in either the animals' natural environment (for example, in a national park) or in captivity' (for example, at a zoo). It includes both non-consumptive (for example, game viewing, hiking and walking safaris) and consumptive activities (for example, hunting and fishing)

(Higginbottom, 2004). One of the major contributors to wildlife tourism in South Africa is hunting (Bauer and Herr, 2004). It is defined by Reynolds and Braithwaite (2001) as being the consumptive use of wildlife in either natural habitat, semi captured or farmed conditions. This may involve killing the animal or releasing it with a frequent high rate of mortality. Various forms of hunting exist; for example, big game hunting (most antelope species, such as kudu, eland and elephant), small game hunting (for example, ducks and game-bird hunting) and skill hunting (for example, bow hunting, black powder hunting and falconry (Bauer and Herr, 2004).

In South Africa, hunting can be classified into the two main categories of trophy and biltong hunting (Saayman, et al., 2011b; Lindsey, 2008; Van der Merwe and

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Saayman, 2004). The most important differences between biltong and trophy hunters are:

- the majority of biltong hunters are South African, whereas the majority of trophy hunters are foreigners;
- Biltong hunters mainly hunt wild animals for their meat (venison). This excludes dangerous and scarce game, such as lion, roan, sable, leopard, elephant, rhino and buffalo, whereas trophy hunters hunt wild animals for their horns and skin (trophies) which includes dangerous and scarce game species. Dangerous game animals are, in most cases, also very expensive to hunt and thus are not easily accessible to local biltong hunters. More hunters hunt for biltong (200 000 hunters) than for trophies (approximately 7 000 hunters) per year.

It is therefore important that game farm/product owners and marketers understand that markets consist of buyers, and buyers differ in one or more ways, such as in their desires, resources, locations, buying attitudes and buying practices (Kotler et al., 2003; Reynolds and Braithwaite, 2001). Armario (2008) asserts that in a highly competitive environment (or market), being able to offer an attractive hunting destination implies having a good understanding of various factors. One of these factors is the motivation for a hunter choosing one particular destination from amongst all the alternatives. Knowing the different segments and travel motives of hunters will assist product owners or managers not only to identify the main attributes that will draw hunters to their doors, but also to develop the correct type of facilities and activities (Chang, 2007).

Therefore, the purpose of this research is to determine the reasons why South African biltong hunters hunt and to identify different market segments (clusters) based on the biltong hunters' motivations. This research will ultimately answer the following questions:

- What motivates hunters to hunt?
- Are there different segments (clusters based on behaviour and socio-demographics) of biltong hunters to be identified and differentiated?

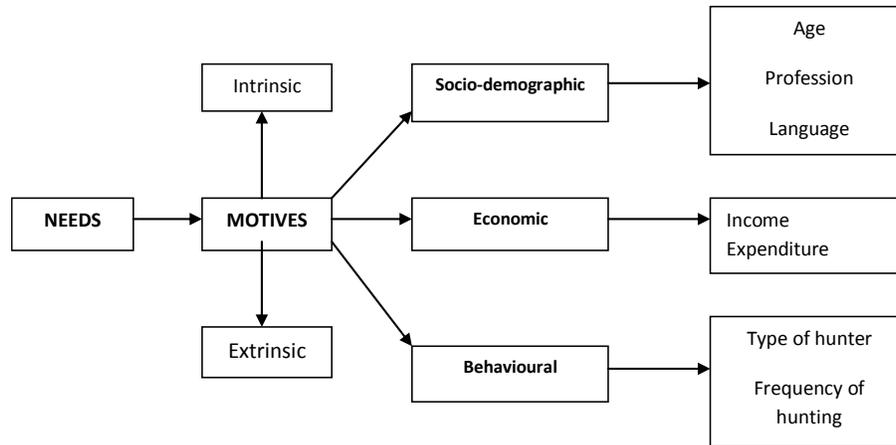
## REVIEW OF LITERATURE

Mulder (2011) identified two factors that motivate individuals to travel. Firstly, tourists travel as a response to what is lacking yet desired (that is, a need). Travel motives are the result of a desire for something new or different that can neither be found nor provided in the home environment, or that might not be culturally acceptable in the home environment. Secondly, tourists travel as a response to individual needs. Behaviour is considered a process of internal psychological factors such as needs, wants, goals and values, which generate

tension, and further, can lead to behaviours designed to release this tension in various forms, for example, the need to travel (Beh and Bruyere, 2007). Apart from these elements, socio-demographic factors furthermore affect travel motives, and include the following; age, education, gender, occupation, income and the home environment or socio-cultural influences (Mulder, 2011). The socio-demographic factors can best be determined by segmenting a market into different segments. As it becomes more difficult to serve a total market (the biltong market), the need for market segmentation is becoming more of a necessity (Saayman and Slabbert, 2004). Market segmentation, also called 'target market analysis' (Morrison, 1996) involves the identification of factors used as segmentation variables that can be followed when segmenting the market into specific groups (Van Raaij and Verhallen, 1994). According to Saayman (2006), market segmentation is the process of dividing a heterogeneous market into groups of tourists that are fairly homogeneous. Homogeneous groups are based on the needs, desires, attitudes or behavioural patterns that a specific group of people display (Sung et al., 2000). It involves the division of the total market into submarkets or, in other words, segments which have the same level of responsiveness towards certain marketing inputs.

To enable product owners and managers to find and maintain an edge over their rivals in the hunting industry, product owners and managers must examine market segments, and should then identify one or more subsets of customers within the total hunters' market and concentrate their efforts on meeting the needs of that group of hunters (Kotler et al., 2003). The benefit of market segmentation lies in a hunting product being able to specialise in the needs of a particular group of hunters (biltong) and become the best in catering to this group. In doing so, the hunting destination gains a competitive advantage because: 1) competition can be reduced; 2) efforts can be focused on improving the hunting product in a specific manner rather than trying to provide all things to all hunters (for example making expensive species, such as nyala, available to biltong hunters); 3) marketing efforts can be focused by developing the most effective method for the targeted segment (for example, offering a variety of biltong species to choose from) and by communicating the message through the most effective communication channel for the segment (for example, in hunting magazines); and 4) hunters (tourists) experiencing a hunting trip at a hunting destination that suits their special hunters' needs are likely to be more satisfied with their hunt and, consequently, revisit and advertise the hunting destination among like-minded hunters (Dolcinar, 2008).

Determining travel motives of tourists is often used as a complementary method to identify market segments (Dolcinar, 2008). These motives comprise the needs or wants that drive tourists to make decisions concerning specific tourism destinations (Saayman, 2001). Swanson



**Figure 1.** Hunters need model (Created by the author).

and Horridge (2006) define travel motives as needs that cause a person to participate in a tourist activity, whereas Chen et al. (2008) consider travel motives to constitute the operation of inferred intrapersonal processes that direct, activate and maintain behaviour. Chang (2007) describes travel motivation as a reflection of needs and wants that can be viewed as a critical variable in relation to purchase decisions and the outcome of satisfaction. These definitions clearly indicate that travel motives involve satisfying certain needs of tourists that will thereafter exert an influence on their choice of tourism destination.

Crompton and McKay (1997) give three reasons for determining travel motives of tourists (hunters). Firstly, this is a key to designing offerings for tourists. In marketing, it is well-known that tourists do not buy a product or a service, but rather the expectation of the benefits that satisfy a need. Since game farms are possibly designed to meet the needs of different hunters (Figure 1), it is therefore important to identify these needs so that the design and development of game farms can meet them. These needs could include the game species hosted by the game farm, the development of the rest/hunting camp, additional activities such as game viewing, horse riding and traditional food, to name but a few. Thus, enhancement and maintenance of the intrinsic motivations of the hunters should be the main objective of managers or owners of game farms. Apart from an intrinsic motive, hunters also exhibit an extrinsic motive. Extrinsic here refers to the products of hunting, namely, trophies and skins for trophy hunters and biltong for biltong hunters. If these motives are identified, the owner or manager of the game farm can change their product to facilitate the fulfilment thereof. For example, if shooting different species is the main motive, game farm owners then can host a variety of species, as opposed to hundreds of only one species. An important question that game farm owners and managers need to answer

whether the hunting product that they provide is consistent with the benefits that hunters receive from the hunt.

Secondly, understanding travel motives is related to satisfaction, motives that occur before and after the experience. In South Africa, most of the game farms draw their hunters from Gauteng province (Van der Merwe et al., 2011), therefore, game farm owners and managers all tap the same hunters' market. It should be recognised that there are more than 9000 game farms and, therefore, that competition is fierce. Consequently, it is important to satisfy the hunters' needs, as this will largely determine whether they will return. Therefore, if hunters are to return, they must be relatively satisfied with their previous experience; or in this case, the hunting experience.

Finally, understanding travel motives is a key ingredient to understanding the decision-making processes of hunters. It facilitates effectiveness in other marketing activities. For example, target markets based on the benefits sought may be explained, and promotions may be themed around those needs so it appeals to the hunters and the target market (Crompton and McKay, 1997).

Hunting consists of ideas, expectations and the anticipation of their fulfilment. Expectations are the standards against which hunters subsequently evaluate their hunting experiences. Therefore, game farm owners are unlikely to offer wholly satisfying hunting experiences without a sound understanding of the nature of their hunter expectations (their quest). Determining the hunter's motives to hunt will greatly assist in this regard (Radder, 2001; Walker and Baker, 2000). It is therefore clear that the travel motives of hunters play an important role in the success of developing hunting products.

Figure 1 represents a summary of the aspects discussed earlier where it is indicated that it all starts with the need to hunt. Needs lead to motives which can be intrinsic or extrinsic or a combination of both. These

motives however are influenced by the socio-demographic, economic and behavioural variables.

The literature contains a number of studies on the motives of hunters, these include Arthur and Wilson (1979), Decker et al. (1980), More (1984), Decker and Connelly (1989), Radder (2005) and Mulder (2011).

The literature clearly indicates that the travel motives of hunters can be broadly summarised as being companionship/social/family, experiencing nature/getting outdoors, viewing and knowing animals, using particular equipment and developing skills. Aspects such as companionship, experiencing nature and getting outdoors appear to be more important than hunting an animal. This view is supported by Arthur and Wilson (1979:32) as well as More (1984) who found that, 'although harvest (hunting an animal) is an essential motive, it is not the only motive' and that companionship seems to be a greater motive to hunt. Decker et al. (1980) noted that the motives for hunting to which the highest rankings were accorded, were 'getting outdoors' and 'seeing some animals or signs', followed by 'relaxation and getaway from routine', while 'getting shots at deer' received a lower ranking. The literature therefore approves the statement by Decker et al. (1980) that hunting is about more than merely killing an animal.

Most of the existing research found pertaining to the travel motives of hunters was conducted in America and of a descriptive nature, with one study carried out in New Zealand (Croome et al., 1983) and two studies (Radder, 2005; Mulder, 2011), in South Africa. The two South African studies focused on the travel motives of trophy hunters, rather than biltong hunters. Trophy hunters mostly comprise foreigners and represent the smallest number of customers to game farms in South Africa (Saayman et al., 2009), thus making it even more important to determine the travel motives of biltong hunters. The results of Radder's (2005) research revealed that the motive with the highest ranking for trophy hunters was 'spiritual' (be in nature, reconnect with land, recommit to life) – the first time that such a motive has been identified in this type of research. Other motives were 'emotional' (your heart rate doubles, just the thought excites you) and 'exploration' (experience new places and search for adventure). Mulder (2011) identified 'personal values' (hunting is in my blood and hunting is part of my heritage) as the most important travel motive for trophy hunters, followed by 'excitement/challenge/skills' (hunting is an exciting adventure, I like the thrill and enjoy the challenge) and 'social interaction' (meet new people and share time with like-minded people).

'The needs and preferences of hunters in the Tran-svaal' by Vermeulen (1994) was one of the few studies that focused on why local (biltong) hunters hunt. Conducted in the early 1990s, the research, however, touches only lightly on travel motives in a descriptive form.

Mulder's (2011) research revealed that the socio-demographic factors of age, hunting experience and

income each influence the travel motives of trophy hunters. The factor 'Hunting experience' indicated that the more hunting experience the hunter has, the higher the motivation was to gain exciting and meaningful experiences through hunting challenges that needed greater skill. The 'Age of hunters' revealed that respondents in the 70 to 89 years age group tended to pursue hunting for personal reasons such as heritage, the ability to contribute to wildlife conservation, exercise, to escape from the stress of daily routine, and for opportunities to share experiences with loved ones. Hunters in the age group 40 to 49 years indicated that reasons to travel to South Africa to hunt would fulfil a truly unique experience and would be 'a dream (come) true'. The socio-demographic factor 'income' revealed that respondents who earned between US\$100 000 and US\$200 001 *per annum* felt that hunting in South Africa was a truly unique experience and the realisation of a dream. 'Country of residence' revealed that both USA and non-USA hunters participated in hunting for the following reasons: personal values, ego enhancement/status motives and social interaction/ enhancement of kinship relationship factors.

Behavioural segmentation divided tourists into groups according to their relationship with particular tourism offerings. Examples are: 'desire for benefits', which refers to the desire of a hunter to buy a hunting product that is value for money, while for other hunters, this may mean quality trophies or the atmosphere of hunting farms. 'Loyalty' to a region or farm, for example, could imply that they preferred to hunt in the bushveld. 'User status' refers to the number of times that hunters had hunted, were first time hunters, or regular hunters.

Research available in South Africa, concerning the travel motives and market segmentation of hunters was conducted mainly with regards to trophy hunting (that is the foreign market), that is, the smaller market. Research is lacking concerning the biltong-hunting market; specifically as it applies to travel motives and market segmentation (clustering) so as to facilitate the provision of better services to this larger market.

## MATERIALS AND METHOD

A quantitative research method was used by means of a web-based survey. The advantages of web-based surveys are that they allow the researcher access to a unique population and they save time and money (Wright, 2005). The survey was conducted using 'Potshot', the electronic newsletter of South African Hunters and Game Conservations Association (SAHGCA) from October 2009 to January 2010, which is sent to all SAHGCA members (N=17 066). The questionnaire was based on work carried out by Van der Merwe et al. (2011) and Vermeulen (1994) when determining the profile of biltong hunters, and the work of Radder (2005) regarding the travel motives of trophy hunters.

The questionnaire consisted of three sections:

Section A: socio-demographic details (age, province of residence

and gender),

Section B: economic impact (travel and accommodation costs, group sizes and length of stay), and

Section C: hunting details (travel motives, members' status and preferred animals to hunt).

Wright (2005) stated that if the researcher was making use of a membership email list (web-based), a sample frame could be established if each participant was to receive a unique code number. This was the approach adopted. Respondents stood a chance to win a sponsored hunt, and so 344 (n) completed questionnaires were received. Using the sample size calculator, it was determined that a sample size of 267 (n) from 17 000 (N) would result in a 5% margin error and a confidence level of 90%. As the sample size of this research is above 300, it yielded a margin of error of less than 4.71%.

The data obtained from the survey was captured in Microsoft Excel and was subsequently statistically analysed using SPSS 16 (Field, 2006). The data analysis consisted of three analyses. Firstly, a factor analysis was conducted in order to determine the travel motives, and secondly, a cluster analysis, and thirdly, ANOVA and Tukey's multiple comparisons. The cluster analysis, ANOVA and Tukey's multiple comparisons were added to obtain data in addition to the factor analysis, which could strengthen the original factor analysis, which has not been performed previously with regards to South African hunters.

The rotation method used for the principal axis factoring analysis was Oblimin with Kaiser Normalisation. Factor analysis is used to establish latent variables or factors among observed variables (Tustin et al., 2005). In other words, the technique is used to reduce the data (Malhotra, 2010). The interpretation of a factor analysis is facilitated by identifying the items that have sufficient loadings on the same factor (Mulder, 2011). The seven factors that were identified explained 59.3% of the total variance. Cronbach's alpha was then used to measure the internal consistency of the travel motives. Flucker and Turner (2000) confirm that Cronbach's alpha is the preferred measure of internal reliability, measuring the correlations between the items describing the same concept. The Cronbach's alpha for the research results ranged between 0.567 and 0.790, which are acceptable.

The cluster analysis employing Ward's method with Euclidean distance, was performed on the scores of the travel motives of biltong hunters. A cluster analysis is a multivariate interdependence technique for which primary objective is to classify objects into relatively homogeneous groups based on the set of variables considered, and is mostly an exploratory technique (Hair et al., 2000). Hierarchical clustering makes no assumptions concerning the number of groups or group structure. Instead, the members are grouped together based on their natural similarity (Johnson and Wichern, 2007). This research did not take a view, *a priori*, of which data points should fall into which segment. Rather, a hierarchical cluster analysis was used to explore the natural structure of the data, using Ward's method with Euclidean distances.

ANOVAs and Tukey's multiple comparisons, together with two-way frequency tables, and chi-square tests, were used to investigate any significant differences between the motivational clusters of biltong hunters. The study used demographic variables (age, number of times hunted and income) and behavioural variables (province hunted, hunting method, hunt preference and marital status) to examine whether there were statistically significant differences between the groups. The results of the statistical analyses are discussed in the next section.

## RESULTS

This section discusses the results of the factor analysis

(travel motives), and presents the results of the ANOVAs and Tukey's multiple comparison, as well as two-way frequency tables, and chi-square tests to investigate significant differences.

### Results from factor analysis: Reason for hunting

The factor analysis identified seven travel motives from 27 constructs: Factor 1: education, Factor 2: cultural heritage, Factor 3: family togetherness, Factor 4: experience and excitement, Factor 5: adventure, Factor 6: meat products and Factor 7: spiritual (Table 1).

#### Factor 1: Education

The first identified factor is 'education', which consists of constructs such as to 'learn about nature and broaden knowledge of hunting, members of a hunting party can learn about nature/hunting and learn about animals' behaviour during the hunt'. This factor has a mean value of 4.02, making it the third most important motive for hunters to travel, and a Cronbach's alpha of 0.760. Research into the demand on wildlife resources conducted by Arthur and Wilson (1979) confirms this factor.

#### Factor 2: Cultural heritage

Cultural heritage consists of constructs such as 'reconnect with land, grew up with hunting, practise heritage and family tradition'. This factor has a mean value of 3.52, the second lowest value of the seven factors, and a Cronbach's alpha of 0.711. Radder (2005) identified some of these constructs, which were labelled somewhat differently as 'spiritual' and 'social'.

#### Factor 3: Family togetherness

The third identified factor is 'family togetherness', which has the third lowest mean value (3.62) and a Cronbach's alpha of 0.790. The factors consist of constructs such as 'benefit of children' and 'breakaways as family' and 'hunt together', as confirmed by Mulder (2011).

#### Factor 4: Experience and excitement

The factor 'experience' consists of constructs such as 'to experience thrill of the chase, challenges that the hunt provides, experience fun and enjoyment and contribute to conservation'. With a mean value of 4.46, this is the most important travel motive for South Africans biltong hunters. It has a Cronbach's alpha of 0.764 and is confirmed by Arthur and Wilson (1979) and Mulder (2011).

**Table 1.** Biltong hunters' travel motives.

| Factor                              | Mean value | Cronbach's alpha | Key construct  |
|-------------------------------------|------------|------------------|--|
| Factor 1: Education                 | 4.02       | .760             | Learn about nature and broaden knowledge of hunting<br>Members of hunting party can learn about nature/hunting<br>Learn about animals' behaviour during the hunt |
| Factor 2: Cultural/ heritage        | 3.52       | .711             | Reconnect with the 'land'<br>I grew up with hunting<br>Practice heritage, family tradition<br>Annual visit<br>For wing shooting                                  |
| Factor 3: Family togetherness       | 3.62       | .790             | For the benefit of my children<br>Break away as family and hunt together   |
| Factor 4: Experience and excitement | 4.46       | .764             | Experience thrill of the chase<br>Enjoy the challenge that the hunt provides<br>Experience fun and enjoyment<br>Contribute to conservation                       |
| Factor 5: Adventure                 | 3.39       | .630             | Experience adrenalin rush<br>Test abilities to hunt/required skill<br>Explore new hunting destination<br>Spend time with hunting friends<br>Collect trophies     |
| Factor 6: Game meat products        | 3.68       | .567             | Hunt for the meat<br>Hunt for biltong  |
| Factor 7: Spiritual                 | 4.31       | .715             | Hunting is a spiritual experience<br>Experience majesty of nature<br>Opportunity to appreciate nature<br>Recommit to life<br>Get away from my routine<br>Relax   |

**Factor 5: Adventure**

Adventure consists of constructs such as 'experience adrenalin rush, test abilities to hunt, explore new hunting destination, spend time with hunting friends and collect trophies'. This factor has the lowest mean value (3.39) and is therefore the least important travel motive for South African biltong hunters. The Cronbach's alpha is 0.630. Radder (2005) labels this factor 'emotional', which his research found to be the second most important travel motive for trophy hunters, with constructs such as 'enjoy the challenge, experience thrill and experience adrenalin rush'.

**Factor 6: Game meat products**

This factor has a mean value of 3.68 and a Cronbach's alpha of 0.576. It consists of constructs such as 'hunt for meat and hunt for biltong'. None of the previous research

revealed a similar travel motive. However, Decker et al. (1980) found 'trophy display' to constitute an important motive for American hunters.

**Factor 7: Spiritual**

With a mean value of 4.31, the second most important travel motive is spiritual. This has no religious connotation but rather consists of constructs such as 'hunting is a spiritual experience, experience the majesty of nature, opportunity to appreciate nature, to recommit to life, to get away from routine and to relax'. This research confirms that of Radder (2005).

**Results from the cluster analysis**

A hierarchical cluster analysis, using Ward's method of Euclidean distances, was used to determine the

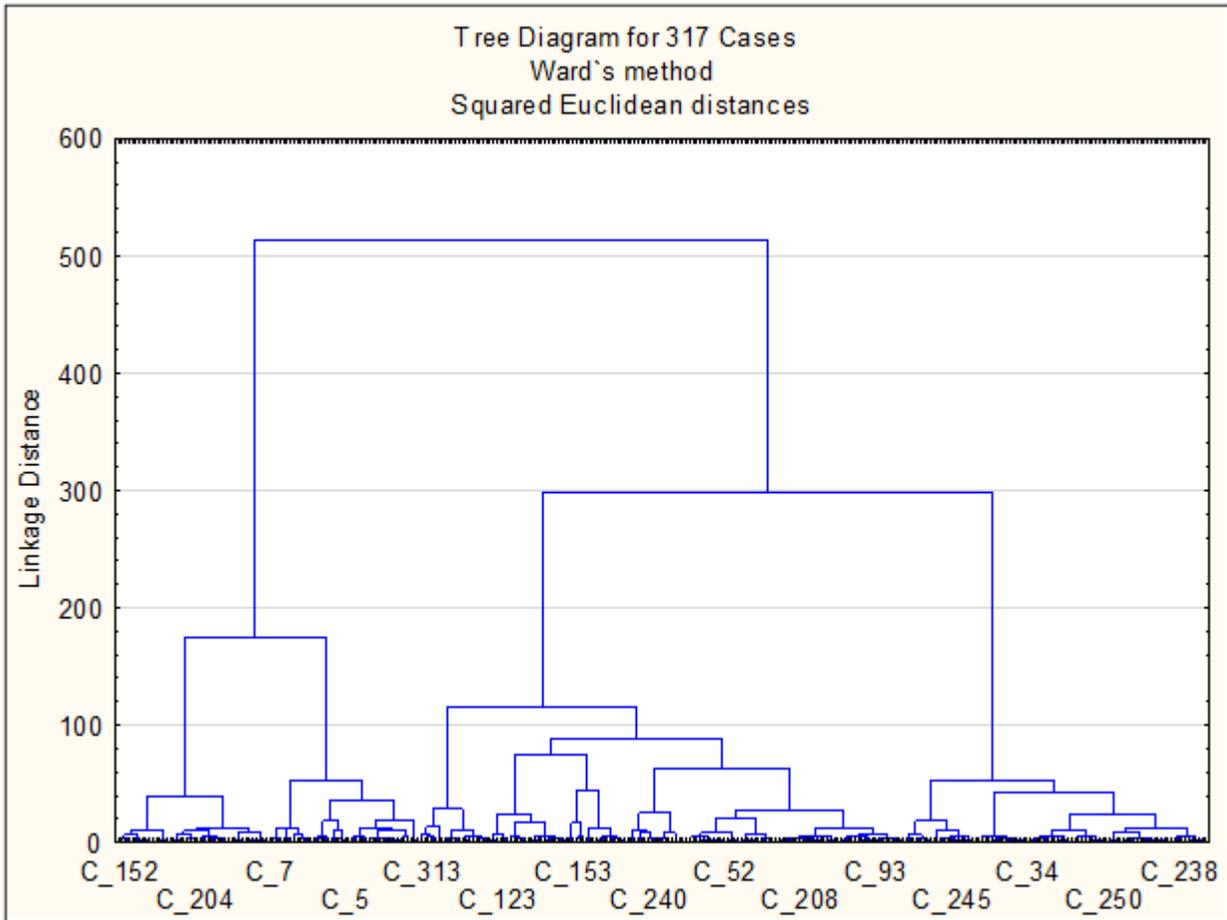


Figure 2. Three cluster solution: Ward's method with squared Euclidean distance measures.

structures of the clusters based on the motivation factors. Two-cluster and three-cluster solutions were investigated, and the three-cluster solution was selected as being the most discriminatory (Figure 2). The results of the multivariate analyses were used to identify the three clusters and to indicate that significant differences existed between them ( $p < 0.05$ ) (Figure 1).

### Identification of segmented clusters

As shown in Table 2, ANOVAs indicate that all seven motivational factors contributed to differentiating between the three motivational clusters ( $p < 0.05$ ).

Cluster 1, labelled 'Devoted hunters', consisted of 88 respondents, which yielded the highest average mean score across the seven motivation factors (Table 2). Cluster 2, labelled 'Family ties', comprised 141 respondents with a mean score of 3.66. Cluster 3, labelled 'Thrill seekers', consisted of 88 respondents with a mean score of 3.65.

ANOVAs were subsequently used to determine whether significant differences exist between the three clusters of

biltong hunters based on other socio-demographic and behavioural variables. As indicated in Table 2, no socio-demographical variable showed any significant difference between the three groups of hunters. However, the annual income for 'Devoted hunters' was considerably higher than that of the other two clusters, 'Family Ties' and 'Thrill Seekers', thus indicating that they have the financial means to hunt more often.

### Cross-tabulation and chi-square test results

As Table 3 indicates, statistically significant differences exist between the motivational clusters in terms of province hunted ( $p = 0.021$ ), hunting method ( $p = 0.026$ ), hunt preference ( $p = 0.014$ ) and marital status ( $p = 0.001$ ). These significant differences are discussed as follows.

- *Province hunted*: The largest percentage of *Devotees* prefer to hunt in the North West (40%) and Limpopo Provinces (16%). In the three clusters, 'Thrill seekers' represented the highest percentage of hunters in the

**Table 2.** ANOVA and Tukey's post hoc multiple comparison results for motivational factors in three clusters of Biltong hunters.

| Motives to hunt           | Cluster 1: Devotees | Cluster 2: Family ties | Cluster 3: Thrill seekers | F-ratio | Sig. level |
|---------------------------|---------------------|------------------------|---------------------------|---------|------------|
|                           | (N=88)              | (N=141)                | (N=88)                    |         |            |
| Educational               | 4.34 <sup>a</sup>   | 3.86 <sup>b</sup>      | 3.94 <sup>b</sup>         | 13.48   | < 0.05     |
| Cultural/heritage         | 3.82 <sup>a</sup>   | 3.08 <sup>b</sup>      | 3.33 <sup>c</sup>         | 32.95   | < 0.05     |
| Family togetherness       | 4.67 <sup>a</sup>   | 3.86 <sup>b</sup>      | 2.18 <sup>c</sup>         | 288.38  | < 0.05     |
| Experience and excitement | 4.71 <sup>a</sup>   | 4.25 <sup>b</sup>      | 4.53 <sup>c</sup>         | 30.96   | < 0.05     |
| Adventure                 | 3.71 <sup>a</sup>   | 3.17 <sup>b</sup>      | 3.39 <sup>c</sup>         | 22.60   | < 0.05     |
| Game meat                 | 4.07 <sup>a</sup>   | 3.30 <sup>b</sup>      | 3.86 <sup>a</sup>         | 32.69   | < 0.05     |
| Spiritual experience      | 4.58 <sup>a</sup>   | 4.13 <sup>b</sup>      | 4.34 <sup>c</sup>         | 25.70   | < 0.05     |

| Characteristic         | Cluster 1: Devotees | Cluster 2: Family ties | Cluster 3: Thrill seekers | F-ratio | Sig. level |
|------------------------|---------------------|------------------------|---------------------------|---------|------------|
|                        | (N=86)              | (N=138)                | (N=86)                    |         |            |
| Age                    | 45.48               | 46.75                  | 46.60                     | .347    | .707       |
| Number of times hunted | 3.77                | 3.67                   | 3.60                      | .059    | .942       |
| Income                 | 821331.81           | 507661.42              | 34814.54                  | 1.240   | .291       |

\*Statistically significant difference:  $p \leq 0.05$ .

<sup>a</sup>Group differs significantly from type (in row) where <sup>b</sup> is indicated.

<sup>c</sup>Group differs significantly from type (in row) where <sup>a</sup> and <sup>b</sup> are indicated.

Eastern Cape Province. However, 'Family ties' hunters prefer to hunt in the Limpopo (34%) and Northern Cape Provinces (18%).

- *Hunting method*: In Table 3, it is evident that a larger percentage of 'Devotees' prefer to hunt from a vehicle compared to fostering 'Family ties' and the 'Thrill seekers'. The results also revealed that a larger percentage of hunters from the clusters 'Family ties' and 'Thrill seekers' opt to make use of the 'walk and stalk' method when compared to the 'Devotees' (who prefer to hunt from a vehicle).

- *Hunt preference*: The results revealed that a larger percentage of *Devotees* prefer to hunt alone whereas larger percentages of those who prefer *Family ties* and are *Thrill seekers* prefer to hunt in a group.

- *Marital status*: The results for 'Devotees' and 'Family ties' yielded the highest percentage for 'married' respondents.

## CONCLUSIONS AND IMPLICATIONS

This research set out to answer the following questions: 1) What motivates the biltong hunter to hunt, and 2) Are there different market segments of biltong hunters? The literature review identified a number of studies on travel motives of hunters in America, but only a small number of South African studies. The studies in South Africa have focused primarily on the travel motives and behaviour of trophy hunters. This research however, focused on the largest category of hunters in South Africa, namely the biltong hunter. The two most important motives were 'experience and excitement' and 'spiritual', which can be classified as intrinsic motives. The cluster analysis

identified three clusters, namely, 'Devotees', 'Family ties' and 'Thrill seekers'. The results indicated that there are significant differences between these three clusters regarding their behaviour, specifically, with regards to hunting methods and the preferences of the hunters.

## Implications

With these questions in mind, this research produced the following findings and implications. In the first instance, the results revealed a clear difference between the travel motives of biltong- and of trophy-hunters. Biltong hunters have motives such as 'cultural heritage, meat products and education', which trophy hunters do not have (Radder, 2005; Mulder, 2011). On the other hand, 'adventure' as a travel motive was viewed as an important motive for trophy hunters. The two most important travel motives identified by the research with respect to South African biltong hunters are 'experience/excitement' and 'spiritual'. Radder's (2005) research regarding trophy hunters also confirms 'spiritual' as an important travel motive. Therefore, the hunting industry needs to take note that 'spiritual' reasons such as a hunting motive can be considered as being important for both biltong and trophy hunters, again, referring to intrinsic needs that hunters want to satisfy. The implication of these findings is that product owners and marketers (the industry) should adopt different marketing approaches for biltong and trophy hunting based on their differing travel motives.

The second finding is that motives differ from country to country, possibly because destinations each have different offerings. Therefore, a destination holds the opportunity to position their offerings as being unique. For

**Table 3.** Chi-square test results of visitor characteristics (N=317).

| Characteristic         | Motivational clusters          |                                       |                                      | Chi-square value | Df | Sig. level | Phi-value |
|------------------------|--------------------------------|---------------------------------------|--------------------------------------|------------------|----|------------|-----------|
|                        | Cluster 1: Devotees (N=86) (%) | Cluster 2: Family caring (N =138) (%) | Cluster 3: Nature lovers (N =86) (%) |                  |    |            |           |
| <b>Province hunted</b> |                                |                                       |                                      |                  |    |            |           |
| Eastern Cape           | 6                              | 9                                     | 17                                   | 29.4             | 16 | .021*      | 0.305     |
| Free State             | 7                              | 1                                     | 7                                    |                  |    |            |           |
| Gauteng                | 2                              | 8                                     | 3                                    |                  |    |            |           |
| KwaZulu-Natal          | 7                              | 6                                     | 3                                    |                  |    |            |           |
| Limpopo                | 16                             | 17                                    | 17                                   |                  |    |            |           |
| Mpumalanga             | 9                              | 2                                     | 7                                    |                  |    |            |           |
| Northern Cape          | 8                              | 18                                    | 13                                   |                  |    |            |           |
| North West             | 40                             | 34                                    | 28                                   |                  |    |            |           |
| Western Cape           | 5                              | 5                                     | 5                                    |                  |    |            |           |
| <b>Hunting method</b>  |                                |                                       |                                      |                  |    |            |           |
| Lie and wait           | 5                              | 1                                     | 0                                    | 11.01            | 4  | .026*      | 0.186     |
| From vehicle           | 27                             | 15                                    | 22                                   |                  |    |            |           |
| Walk and stalk         | 68                             | 84                                    | 78                                   |                  |    |            |           |
| <b>Hunt preference</b> |                                |                                       |                                      |                  |    |            |           |
| Group                  | 16                             | 28                                    | 35                                   | 8.607            | 2  | .014*      | 0.165     |
| Alone                  | 84                             | 72                                    | 65                                   |                  |    |            |           |
| <b>Marital status</b>  |                                |                                       |                                      |                  |    |            |           |
| Divorced               | 2                              | 3                                     | 9                                    | 23.785           | 6  | .001*      | 0.274     |
| Living together        | 1                              | 1                                     | 6                                    |                  |    |            |           |
| Married                | 91                             | 93                                    | 72                                   |                  |    |            |           |
| Not married            | 6                              | 3                                     | 13                                   |                  |    |            |           |

\*indicates significance at the 5 level.

example, South Africa possesses a vast variety of wild life and can provide the hunters with more than 30 antelope species to hunt, not to mention the numerous predator and bird species (Walker, 1996). This implies that South African product owners (industry) must develop hunting packages that suit the needs of the market, in this case, the biltong hunters. This would also influence product development for local hunters.

The third finding is based on the result of the cluster analysis. Here, three clusters of biltong hunters were identified: 'Devotees', 'Family ties' and 'Thrill seekers'. These clusters differ considerably based on their travel motives and behaviour. However, no significant differences were found regarding socio-demographic characteristics of the hunters, indicating that it is a very homogeneous market. It is however important to mention that the annual income of 'Devoted hunters' is significantly higher than that of the two other groups. Mulder's (2011) research, by contrast, revealed socio-demographic differences among trophy hunters. One reason for this could be that they all stem from different countries,

whereas biltong hunters mostly stem from South Africa. 'Devotees' seem to prefer to hunt from a vehicle, whereas those who prefer 'Family ties' and the 'Thrill seekers' tend to prefer the 'walk and stalk' hunting method. The cluster analysis also indicated that there is a greater preference among 'Devotees' to hunt alone than there is among the 'Thrill seekers' and those who prefer 'Family ties'. The next, and most significant difference found between the three clusters, is that a higher percentage of 'Devotees' and those who revere 'Family ties' are married, thus indicating a significant difference in the behaviour of biltong hunters. The implication of this finding is that product owners and managers should develop hunting products that suit the needs of the three different clusters of the biltong hunters. For example, product owners can develop hunting products for the cluster 'Devotees' where hunters have the option to hunt from a vehicle or to hunt alone. In the case of the two clusters, 'Family ties' and 'Thrill seekers', product owners must embrace the opportunity for these hunter clusters to make use of the 'walk and stalk' hunting method. Therefore, based on the

research findings, it is apparent that it is more important to take cognisance of the behavioural aspects of hunters than the socio-demographical aspects when developing hunting packages.

Finally, the research confirms the findings by Arthur and Wilson (1979), Decker et al. (1980) and More (1984), that there are more reasons to hunt than merely seeking to kill an animal. The implication is that product owners must also provide hunters with the opportunity to experience nature, to socialise and to relax. This finding supports the premise that most biltong hunters are motivated by intrinsic motives as opposed to extrinsic motives, such as the products of hunting. For example, hunters should be afforded the opportunity to interact with nature through the 'walk and stalk' hunting method rather than hunting from a vehicle and to relate memorable experiences while sitting around the campfire in the evenings.

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