A benefit segmentation framework for a nature-based tourism destination: the case of Kruger, Panorama and Lowveld areas in Mpumalanga Province

Lesedi Tomana Nduna and Cine van Zyl

Abstract

Purpose – *The purpose of this study is to investigate benefits tourist seek when visiting a nature-based tourism destination to develop a benefit segmentation framework.*

Design/methodology/approach – *The study used quantitative research methods, with 400 self-administered survey administered to a sample of 400 tourists visiting the Kruger, Panorama, and Lowveld areas in Mpumalanga.*

Findings – *Cluster analysis produced two benefit segments. Binary logistic regression benefits that emerged from the cluster analysis were statistically significant predictors of the attractions tourists visited and the activities in which they participated during their stays in Mpumalanga. Factor-cluster analysis and binary logistic regression results were used to develop a benefit segmentation framework as a marketing planning tool.*

Research limitations/implications – *The study was only based on Mpumalanga Province and therefore, the results cannot be generalised. The study was conducted over one season, the Easter period*

Practical implications – *The proposed benefit segmentation framework provides a tool that destination management organisations can use to plan effectively for marketing.*

Social implications – *Effective marketing may lead to increased tourism growth which can have a multiplier effect on the destination.*

Originality/value – *This article is based on a master's study conducted in Mpumalanga and results are presented on this paper.*

Keywords *Nature-based tourism destination, Marketing planning, Product development, Benefit segmentation, Binary logistic regression, Mpumalanga Province*

Paper type *Research paper*

Lesedi Tomana Nduna is based at the Department of Applied Management, University of South Africa, Pretoria, South Africa. Cine van Zyl is based at the Department of Transport Economics Logistics and Tourism, College of Economic and Management Sciences, University of South Africa, Pretoria, South Africa.

1. Introduction

Benefit segmentation is the process of grouping consumers into market segments on the basis of desirable consequences sought from the product (Bennett & American Marketing Association, 1995, p. 23). Segmenting according to benefits uncovers the relative value consumers attach to different benefits (Haley, 1968). As an approach, benefit segmentation enables better understanding of tourists' needs and determining behaviour (Almeida *et al.*, 2014, p. 6; Armstrong *et al.*, 2014, p. 159; Dolnicar, 2008, p. 130; Frochot, 2005, p. 339). Destination management is increasingly streamlining marketing efforts towards identified segments rather than a one-size-fits-all approach. The volatile economic environment and growth in the number of tourist destinations in recent years have led to increased competition among destinations (Anholt, 2009, p. 4). Marketing planning is important to

ensure that the marketing segmentation approach selected results in a reasonable return on marketing investment (Dolnicar and Grün, 2008, p. 63). Marketing planning is concerned with analysing existing consumers to recognise opportunities and to set realistic and achievable marketing goals (Tsiotsou and Goldsmith, 2012, p. xxxv; Proctor, 2014, p. 3). As a posteriori approach, benefit segmentation relies on the analysis of data to gain insight into the market structure and to decide which segmentation base is most suitable (Dolnicar, 2008, p. 129).

Previous tourism studies have successfully adopted the approach of segmenting tourists according to benefits (Almeida et al., 2014; Dong et al., 2013; Frochot, 2005; Jang et al., 2002; Kim et al., 2011; Molera and Albaladejo, 2007; Sarigöllü and Huang, 2005; Yannopoulos and Rotenberg, 2000; Rudež et al., 2013). The emphasis of previous studies has solely been on using benefits to promote a destination (Frochot and Morrison, 2000). The integration of benefits, attractions and activities available at a destination to develop product and marketing planning tools has been lacking. Jang et al. (2002, p. 3770) propose integrating benefit segmentation with other variables such as activities to present useful information to destination marketing managers. Even though Mehmetoglu (2007, p. 659) incorporates activities with benefits sought, the aim is the importance of benefits rather than the participation of tourists. Investigating tourist participation is significant to match benefits and activities. In doing so, a destination can develop packages to attract potential tourists. Recognising these research gaps indicates the need for further research to investigate benefits tourists seek to develop a benefit segmentation framework (using benefits, attractions, activities and information sources consulted) as a tool to plan for marketing. The aim of this study was to investigate benefits tourists seek from a nature-based tourism (NBT) destination to propose a benefit segmentation framework based on benefits sought, activities engaged in, attractions visited and information sources consulted as a marketing planning tool. NBT destinations are powerful in attracting both tourists and major foreign currency and thus constitute an important component of the tourism industry (Uysal et al., 1994). NBT is a type of tourism, which takes place in a natural environment setting, with the focus on experiencing natural attractions (Breiby, 2014; Chang, 2014; Fredman and Tyrväinen, 2010; Margaryan, 2018; Newsome et al., 2013). Therefore, the primary offering is direct enjoyment of relatively undisturbed natural phenomena (Laarman and Gregersen, 1996; McKercher, 2016). A nature-based approach segmentation can be inadequate if its foundation is based on a perception of nature alone as a benefit (Mehmetoglu, 2007). Such destinations need to adopt marketing planning tools to assume a competitive position (Kruger and Saayman, 2010). It then becomes important to investigate other possible benefits sought by tourists visiting destinations such as Mpumalanga Province. Mpumalanga Province is home to the well-known, Kruger National Park (KNP) (MTPA [Mpumalanga Tourism Parks Agency], 2016; SA Tourism, 2016). The province boasts magnificent scenery, including panoramic passes, and fauna and flora, thus offering tourists a unique opportunity to interact with nature. To date, segmentation studies conducted in Mpumalanga Province have used a number of approaches, including frequency of visits (Kruger and Saayman, 2014), motivation (Slabbert and Laurens, 2012), motives for the visit (Scholtz, Kruger and Saayman, 2013) and demographic characteristics (Kruger, Viljoen and Saayman, 2016). Furthermore, these studies investigated tourists visiting KNP as a tourist attraction and not the overall province as a tourist destination. It is Mpumalanga's strategic marketing objective to position the province as a tourism destination of choice (MTPA, 2016). As a nature-based destination with various product offerings, it becomes necessary to enquire about the benefits that tourists visiting the province are seeking to ensure the whole province can benefit from marketing efforts. This study begins with a review of the literature on benefit segmentation research in tourism, followed by the methodological approach and data collection process used. The paper then presents the results, and finally, it discusses the managerial implications of the results and makes suggestions for future research.

The role of tourism in economic development and job creation is widely recognised (Winchenbach *et al.*, 2019). For many developing countries such as South Africa, tourism has become an attractive economic activity (NDT [National Department of Tourism], 2012). Tourist destinations' growth in recent years has led to increased competition, and data on the characteristics of various markets is critical to destination marketing managers to develop effective marketing plans. The information gained from target segmentation is fundamental to any marketing plan. The primary goal of market segmentation is to identify segments with an interest in specific goods and services to focus marketing efforts on them in the most effective way. Market segmentation is the process of classifying tourists into groups based on different needs, characteristics or behaviour, which have strategic implications for marketing planning (Sarigöllü and Huang, 2005, p. 278). It contributes to the competitiveness of a destination by differentiating its marketing strategy and uniquely positioning it within the market (Dolnicar, 2005, p. 317; McCabe, 2009, p. 147). Various researchers consider benefit segmentation the most suitable segmentation approach, as it allows for better understanding of tourists' needs (Almeida *et al.*, 2014, p. 6; Armstrong *et al.*, 2014, p. 159; Dolnicar, 2008, p. 130; Frochot, 2005, p. 339).

2. Literature review

2.1 Defining benefit segmentation as a strategic marketing approach research

Segmentation approaches can be classified as being either *a priori* or *a posteriori* segmentation approach (Dolnicar, 2004, p. 209; Dolnicar, 2008, p. 131; Hoek *et al.*, 1996, p. 26). The former refers to a case where a destination's management is aware of the segmentation criterion that will produce a potentially useful grouping (common sense) in advance before the analysis is undertaken, whereas the latter is when a destination's management relies on the analysis of the data to gain insight into the market structure and decides which segmentation base is the most suitable (Dolnicar & Grün, 2008, p. 130). It is common in the tourism industry to identify segments based on *a priori* approach (Frochot, 2005; Pesonen *et al.*, 2011, p. 304). The most common priori segmentation approach is country of origin, age or income (Chen, 2003; Hoek *et al.*, 1996). The five most common market segmentation approaches used in travel and tourism are the demographic, geographical, socioeconomic, psychographic and behaviouristic approaches (Middleton *et al.*, 2009, p. 103). The choice of approach needs to be justified because it is one of the most crucial decisions to be taken when conducting segmentation research (Dibb *et al.*, 2012, p. 233).

One of these, benefit segmentation, was of significance to the present study and is defined as a process of grouping consumers into market segments on the basis of desirable consequences sought from the product (Bennett & American Marketing Association, 1995, p. 23).

Haley introduced benefit segmentation in the early 1960s with the aim of developing an approach that would provide better understanding of future purchase by a segment (Frochot and Morrison, 2000). Haley (1968) refers to benefit segmentation as a kind of relative value people attach to different benefits; therefore, a combination of different benefits separates one segment from the other. Benefit segmentation is defined as:

> [...] a form of market segmentation based on the differences in specific benefits that different groups of consumers look for in a product and its objective is to define specific niches that require custom-tailored promotion (The Business Dictionary, 2015).

A number of studies have made use of benefit as a segmentation approach in tourism. This section places benefit segmentation within the context of tourism, specifically NBT destinations and themes found in previous literature

2.2 Review of benefit segmentation research

Frochot and Morrison (2000) reviewed 14 benefit segmentation studies in tourism conducted between 1984 and 1998. The review highlights the value of benefit segmentation as an approach able to facilitate effective marketing. Frochot and Morrison (2000) maintain that a focus on tourist motivations is attributed to a growing interest in benefit segmentation in travel and tourism studies (Frochot and Morrison, 2000, p. 23). Various scholars (Almeida et al., 2014; Dong et al., 2013; Frochot, 2005; Jang et al., 2002; Kim et al., 2011; Molera and Albaladejo, 2007; Rudež et al., 2013; Sarigöllü and Huang, 2005; Yannopoulos and Rotenberg, 2000) have identified diverse benefits, which are unique to each segment. These scholars agree that even though a destination specialises in a niche product such as nature or rural tourism, this does not necessarily mean that such benefits will be the most sought after (Frochot, 2005; Molera and Albaladejo, 2007; Dong et al., 2013; Almeida et al., 2014). Even though these studies were conducted at a rural tourist destination, tourists who sought rural benefits were found to be insignificant in number (Almeida et al., 2014; Dong et al., 2013; Frochot, 2005; Molera and Albaladejo, 2007). In their study, Almeida et al. (2014) report spending time with family and friends in a natural and calm environment to be the most sought benefit. Hence these studies suggest that tourists form their own experiences using a rural tourism product and are not primarily motivated by the rural product (Almeida et al., 2014; Dong et al., 2013; Frochot, 2005). In addition, tourists may be interested in rural destination-related activities.

Tourists can travel to the same destination or buy the same tourism services, but do so for different reasons (Webster, 2009), thus confirming the importance of conducting a benefit segmentation study to discover benefits tourists seek to better align marketing efforts. Integrating benefits sought and activities tourist participate in at a rural destination, Dong et al. (2013) report cultural activities, restaurant dining, shopping and visiting local historical sites to be highly participated in. Similarly, Frochot (2005) discovered eating out and partially experiencing culture to be activities tourists visiting rural areas of Scotland are interested in. For that reason, it is essential to propose segments based on research and not on product-offering assumptions at a destination. In addition, tourists are heterogeneous in the benefits they seek. Literature suggest that tourists want to gaze upon tourist-related objects and collect memories of the place in a superficial and, at times, a visual manner (Dong et al., 2013; Frochot, 2005; Urry, 2011). Consequently, market segments cannot be developed on a destination product speciality because for every tourist visiting a destination the main benefit may vary. Therefore, destination marketing managers need to uncover tourists' true motivation for visiting a destination, to segment, target and position a destination strategically (Frochot, 2005, p. 344; Rudež et al., 2013, p. 139). Studies such as those of Kim et al. (2011) and Jang et al. (2002) highlight the importance of discovering other factors, such as expenses, attractions visited and activities participated in to prioritise marketing efforts further, thus offering tourism destination marketers more information. As one of their recommendations for future research in benefit segmentation, Jang et al. (2002) suggest that benefit segmentation studies should incorporate other variables, such as activities, to offer a richer segment. Tourists find fulfilment in visiting a variety of attractions and participating in a variety of activities available at a destination (Tangeland et al., 2013). A tourist destination operates as a subsystem with different amalgams such as activities, attractions, destination stakeholders, ancillary services and available packages, to name a few. Therefore, benefits tourist seek from visiting a destination can be produced conjointly by a mix of different amalgams (Buhalis, 2000; Cooper, 2012; Fyall et al., 2006, p. 77; George, 2004). Choosing a destination is a high-involvement decision-making process, which relies on various information sources (Yannopoulos and Rotenberg, 2000).

Sources such as word-of-mouth recommendations, online travel reviews, travel agencies, experiences and previous knowledge, advertising, travel reports and online sources are

usually consulted when searching for information related to tourism products (Sparks *et al.*, 2013, p. 1; Swarbrooke & Horner, 2007, p. 75) . Sharing of experiences among tourists through online travel reviews influences potential purchase decisions. Therefore, it is essential to have the right content to influence potential tourists to make a decision (Sparks *et al.*, 2013, p. 1). Destinations ought to act intentionally in communicating information to potential tourists as this can influence decision-making (Hyde, 2008, p. 50). Subsequently, attractions encourage tourists to visit a destination (Cooper, 2012) and the available information plays a critical role in planning a trip. For these reasons, the study reported on in this article not only investigates and seeks to identify the benefits that tourists seek; it also links attractions, activities and information sources consulted during the information search to develop a framework for marketing planning. The research methodology followed in conducting the primary research to accomplish the research objectives is described next.

3. Research methodology

3.1 Study area

The study was conducted in the Panorama, Kruger and Lowveld regions of Mpumalanga Province. Mpumalanga has an estimated population of 1.65 million and is one of the nine provinces of South Africa. Situated in the north-eastern part of South Africa, it offers spectacular scenic beauty and an abundance of wildlife. SA Tourism (2016) suggests that Kruger, the Lowveld and the Panorama regions are the three must-visit regions in South Africa. Furthermore, these three regions are most visited by international and domestic tourists in Mpumalanga (MTPA, 2014; SA Tourism, 2016).

3.2 Research design

As illustrated in Figure 1, this descriptive, empirical study used a survey comprising a structured questionnaire to collect primary data. A multi-stage sampling design that included primary and secondary sampling methods was applied. Primary sampling comprised non-probability sampling, with quota sampling applied to select the three regions. The primary sampling unit for the study was accommodation establishments and key tourist attractions situated in the Panorama, Kruger and Lowveld Legogote regions. A non-probability quota convenience sampling method was followed based on the popularity and concentrated supply of accommodation in the three areas. The secondary sampling unit applied was the tourists visiting these four establishments and four tourist attractions using a non-probability purposive sampling method. A purposive sample was drawn on the basis of the tourist-based screening questions to ensure that only tourists (by definition) were selected for the sample. An equal number of questionnaires were then distributed at

Figure 1 Research design and sampling approach
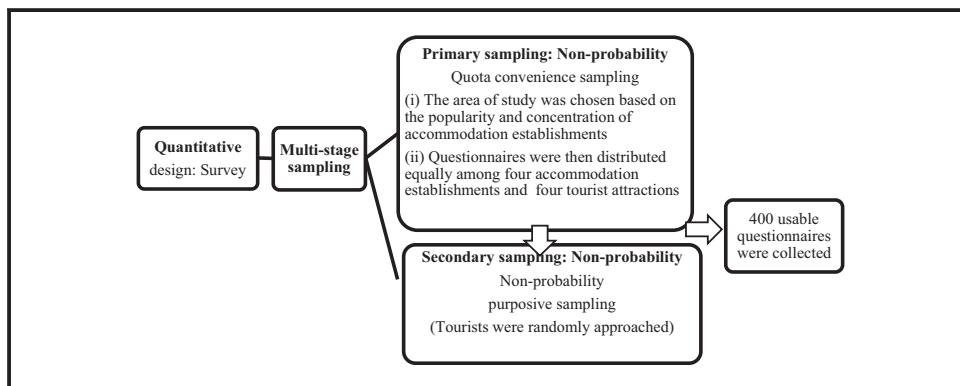
each of the four selected accommodation establishments and four tourist attractions in the Kruger, Lowveld and Panorama regions. The study population comprised international and domestic tourists visiting Mpumalanga on holiday. There was no sampling frame available, and so guidelines for determining the sample size supplied by Nunnally et al. (1967), and Hair et al. (2010) were followed. Table 1 illustrates the recommended sample size and the actual sample size using different theories.

Calculation of the sample size was based on the following:

- the number of items in the questionnaire; and
- the analysis method followed.

The questionnaire consisted of 60 items, and factor analysis is an analytical data analysis performed in benefit segmentation studies (Frochot, 2005). On the basis of the number of items and data analysis method: the sample size recommended by Hair et al. (2010) is 300, whereas the sample size recommended by Nunnally et al. (1967) is 600. The recommendation by Hair et al. (2010) is a suggested minimum sample size.

The adequacy of sample size evaluation suggests the following: 50 – very poor; 100 – poor; 200 – fair; 300 – good; 500 – very good; 1,000 or more – excellent (Comfrey and Lee, 1992; MacCallum et al., 1999). Welman et al. (2009) state that it is not necessary to draw a sample larger than 500, as anything above this will have little effect in reducing the standard error.

Therefore, a sample of 400 was selected for the following reasons: it exceeds the rating of "good" on the scale suggested by Comfrey and Lee (1992) and MacCallum et al. (1999), and it also exceeds the minimum sample size suggested by Hair et al. (2010). Self-administered questionnaires were handed out at accommodation establishments and tourist attractions during the months of March and April 2015. The questionnaires consisted of four parts: *screening questions*, *information sources consulted*, *benefits sought* and *demographic information*. A total of nine benefits, namely, spending time, social bonding, relaxation, natural environment, outdoor adventure, history, culture, escape and learning were measured, with three to four items devoted to each benefit. In total, 32 benefit items were compiled from the most common benefits named in previous tourism segmentation studies. These questions were measured on a seven-point Likert scale ranging from 1 (not important) to 7 (very important) and 1 (disagree) to 7 (agree) with regard to the importance of a benefit. In all, 400 questionnaires were completed, collected and retained for data analysis.

3.2.1 Survey instrument. The questionnaire was designed following a review of the relevant benefit segmentation literature. Frochot and Morrison (2000) reviewed benefit segmentation studies between the 1980s and 1990s, which were used as a basis to develop the different benefit items. The 26 items which featured in the 14 studies reviewed by Frochot and Morrison (2001) were used to identify the most featured benefit items in literature between 2002 and 2013. In total, nine studies

Table 1 Sample size	
Recommendations	*Calculated sample size*
Nunnally et al. (1967)	60 items × 10 = 600
Hair et al. (2010)	60 items × 5 observation per variable = 300
Actual sample size for the study reported on 400: The sampling method was based on the work of	
Hair et al. (2010)	
Comfrey and Lee (1992)	
MacCallum et al. (1999)	
Welman et al. (2009)	

(Almeida *et al.*, 2014; Dong *et al.*, 2013; Frochot, 2005; Jang *et al.*, 2002; Kim *et al.*, 2011; Molera and Albaladejo, 2007; Rudež *et al.*, 2013; Sarigöllü and Huang, 2005; Yannopoulos and Rotenberg, 2000) were analysed to develop benefit items for the present study. Table 2 reflects all benefit items reported in literature between 2002 and 2013, against Frochot and Morrison's (2000) list of benefit items.

From the studies indicated in Table 2, benefits items which were still active were to get away from everyday routine to observe scenic beauty and to experience new cultures, to do something with family, to relax and interest in history, to develop knowledge and abilities as well as to meet new people. The least overall used benefit items indicated was adventure, self-esteem and to satisfy curiosity. Benefits excluded from the Frochot and Morrison (2000) review but investigated by others were cost factor or value for money (Almeida *et al.*, 2014; Jang *et al.*, 2002; Molera and Albaladejo, 2007; Rudež *et al.*, 2013); pleasant weather or beautiful weather (Almeida *et al.*, 2014; Dong *et al.*, 2013; Jang *et al.*, 2002); and opportunities for children (Almeida *et al.*, 2014; Jang *et al.*, 2002; Molera and Albaladejo, 2007). Benefit segmentation enables better understanding and prediction of consumer

Table 2	Benefits investigated by research studies in the field of destination choice									
Benefit items used previously in destination choice studies	Rudež et al. (2013)	Almeida et al. (2014)	Dong et al. (2013)	Kim et al. (2011)	Yannopoulos and Rotenberg (2000)	Molera and Albaladejo (2007)	Frochot (2005)	Sarigöllü and Huang (2005)	Jang et al. (2002)	Total count
To get away from everyday routine	X	X	X	X			X		X	6
To be with friends	X	X		X						3
To do something with the family		X	X	X		X			X	5
To relax	X	X				X	X		X	5
To develop my knowledge and abilities	X	X	X						X	4
To experience something new	X	X								2
To engage in physical activities/keep fit	X	X					X	X	X	5
To be with others to enjoy the same thing	X		X	X						3
To release tensions or stress	X		X						X	3
To experience the tranquillity and solitude	X	X				X				3
To be outdoors in nature		X				X			X	3
To do something different										
To have fun	X								X	2
To do exciting things			X	X						2
For an interest in history			X		X	X		X	X	5
To be entertained			X		X				X	3
For social recognition										
To learn about nature or wildlife			X				X			2
To meet new people	X		X			X	X			4
To do nothing	X						X		X	3
To observe scenic beauty	X		X		X	X	X	X		6
To experience new cultures/places		X		X	X	X	X		X	6
To experience something authentic									X	1
For the adventure							X			1
For own self-esteem										0
To satisfy curiosity										0

behaviour and highly sought benefits can be used in marketing messages (Haley,1968). It is also necessary to use other variables such as travel behaviour (Kim *et al.*, 2011, p. 45; South African Tourism, 2014, p. 23) and demographics (Almeida *et al.*, 2014; Dong *et al.*, 2013; Frochot, 2005; Jang *et al.*, 2002; Kim *et al.*, 2011; Molera and Albaladejo, 2007; Rudež *et al.*, 2013; Sarigöllü and Huang, 2005; Yannopoulos and Rotenberg, 2000) together with benefits to provide information-rich segments.

3.3 Data analysis

The four stages illustrated in Figure 2 forms the basis for developing the framework as a recommendation for the management of Mpumalanga Province. In the framework, attention is paid to benefits, attractions, activities and information sources consulted. In Stage 1, descriptive statistics focus specifically on the information sources consulted to provide information about the sources tourists consulted when planning a trip to Mpumalanga. Exploratory factor analysis was the second stage applied to identify segments based on benefits tourists visiting Mpumalanga sought. Items were collapsed into three categories for interpretation: ratings of 1, 2 and 3 were collapsed into one category; 4 formed a category on its own; and ratings of 5, 6 and 7 were collapsed into a final category.

Exploratory factor analysis was conducted using principal axis factoring extraction and promax rotation to confirm the unidimensionality of the factors in Stage 2. The results were analysed using a two-stage process: an exploratory factor analysis, using principal axis factoring extraction, and promax rotation. The factor loadings, variance and measure of internal consistency for benefits tourists sought when visiting Mpumalanga are explained. Item analysis was performed to determine the reliability of the items (Camira Statistical Consulting Services, 2009). Reliability (Cronbach's alpha) was found to be above 0.70 for 31 benefit items. Only one item was eliminated, as it loaded negatively on the factor natural environment.

It is agreed that, in exploratory research, Cronbach's alpha should be greater than 0.70, although it may decrease to 0.60 (Hair *et al.*, 2010). Cluster analysis has been widely used to segment tourists by benefits as well as other travel-related characteristics (Dong *et al.*, 2013). It is an explorative analysis technique applied with the aim of identifying structures within the data (Zikmund *et al.*, 2010) and maximises heterogeneity between segments (Hair *et al.*, 2010; Zikmund *et al.*, 2010). Two-step clustering was used in the third stage of the study. A two-step cluster analysis identifies the groupings by running pre-clustering first and then using hierarchical methods (Şchiopu, 2010, p. 67). Stage 4, binary logistic regression modelling (Pampel, 2000), was used in the study for both the attractions respondents chose to visit and the activities in which they participated. Binary logistic regression modelling was used to determine whether or not the independent variables (benefits sought identified from clusters) were statistically significant predictors of the attractions respondents visited and the activities they participated in during their stay in Mpumalanga. The associated standardised beta-coefficients and odds ratios and their level of statistical significance were tested at 0.05 and 0.01 significance level.

Figure 2 Data analysis stages followed in the study as reported on in this article
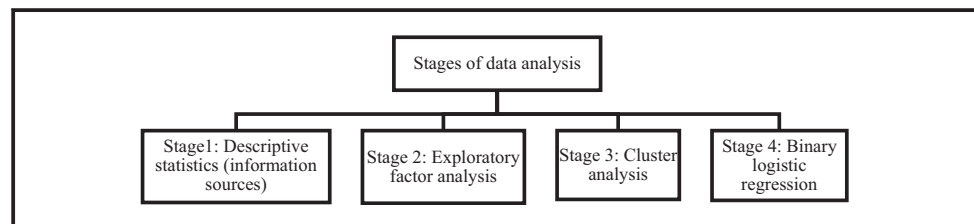
4. Study results

Descriptive analysis suggests that the Mpumalanga tourism sector is dependent on more mature tourists, considering that 78% of the tourists were between 25 and 65 years of age and only 22% of the sample were between 18 and 24 years of age. In terms of spending, the three spending categories (R0–R5,000; R5,001–R10,000; and R10,000+) were almost equally distributed. Data on academic qualifications suggests a rather well-educated sample: 50% of the sample were college/university graduates and 27% held a postgraduate qualification. The sector exhibits overdependence on two main markets: respondents belong to the domestic market, specifically from Gauteng Province (54.5%), and the international market (24.2%). Respondents travelled to Mpumalanga with their partners (25%) and as families with children (24.8%). Tourists interviewed predominantly (91%) visited God's Window during their trip. About 86% drove through the Panorama route and 72% visited Graskop. Mpumalanga is often marketed alongside the KNP as a must-see iconic attraction. It is interesting to note that the KNP was visited by only 66.8% of the respondents. This is contrary to the South African Tourism listing, where the KNP is the top attraction in Mpumalanga (SA Tourism, 2016, p. 1). Even though the KNP is popular, the results provide alternative attractions to promote in the province. Results about activities participated in while in Mpumalanga point out game drives as the most preferred activity (66.5%), followed by hiking trails and birdwatching (28% and 19.8%, respectively). As a build-up to the framework design, the remaining results of the study are presented in subsections that eventually lead up to the benefit segmentation framework. These results are presented according to information sources consulted; identification of benefit segments through factor analysis and cluster analysis; as well as logistic regression.

4.1 Information sources consulted

Tourists were asked to indicate the information sources they had consulted while planning their trips to Mpumalanga. Information sources were divided into two categories, namely, traditional sources and online marketing sources. Traditional sources included friends and family (word-of-mouth), consulted by 31.25%, followed by travel agents, consulted by 24.5%. Of the respondents, 84.7% indicated little or no use of travel magazines and travel brochures during the planning stage. Of the tourists, 41.6% had consulted travel reviews by previous tourists who had visited the province before, 32.1% had watched video clips on YouTube, while 30% had consulted blogs as their source of information when planning their visit. The website of the destination was either not used at all (96.1% of the respondents) or seldom used.

4.2 Identification of benefit segments: factor analysis

Principal axis factoring extraction and promax rotation were conducted on benefit items. Table 3 illustrates that the analysis confirmed unidimensionality for 32 items. One item under the factor natural environment ("Spending a night surrounded by the sound of an African night was important to me") loaded on the factor natural environment with a factor loading of 0.520, and the set of items resulted in a small negative Cronbach's alpha. If item d ("Spending a night surrounded by the sound of an African night was important to me") was not included, the Cronbach's alpha value increased to 0.828, and therefore this item was eliminated from further analysis. With the use of Cronbach's alpha, the internal consistency (reliability) for all the factors as indicated in Table 4 was found to be above 0.70, which is at the acknowledged threshold. Factor-based scores were subsequently calculated where the mean of all benefits can be compared (Table 4).

The mean scores of the different benefits tourists sought while visiting Mpumalanga are presented in Table 4. "Natural environment" as a benefit was highly sought (5.75), followed by "escape" (5.59) and "social bonding" (5.12). Therefore, a factor of value to tourists who visit Mpumalanga was found to be the benefits "natural environment," "escape" and "social

	Factor items	Mean	Factor loading	Cronbach's alpha	Reliability coefficient α	Variance explained (%)
	Factor 1: spending time with loves ones	3.55			0.685	41.607
b.	Family engaged in leisure activities during our stay		0.848			
a.	Family had an enjoyable time during this holiday		0.842			
c.	Interested in discovering new places		0.360			
d.	Important to visit family and relatives during my stay in Mpumalanga		0.326			
	Factor 2: social bonding	5.12			0.717	66.694
d.	Important to meet people from different cultural backgrounds		0.946			
c.	Important to interact with the local residents during your holiday		0.940			
b.	Interested to meet people who seek similar holiday experiences		0.926			
	Factor 3: relaxation	5.10			0.899	76.049
c.	Feel rejuvenated after this visit		0.941			
b.	Enjoy a well-deserved physical rest		0.936			
a.	Relax in a quiet natural environment		0.722			
	Factor 4: natural environment	5.75			0.828	50.078
c.	Interested in spending time in a natural environment		0.940			
b.	Interested in driving along the scenic routes across the escarpment of Mpumalanga (e.g. Panoramic scenic route)		0.799			
a.	Mpumalanga is a tourism destination that offers pleasant weather		0.680			
	Factor 5: outdoor adventure	3.53			0.71	39.133
a.	Important to participate in outdoor activities during this trip (e.g. hiking)		0.758			
c.	A visit to a natural ecological site was important (e.g. Sudwala Caves)		0.653			
b.	Important to participate in wildlife-related activities (e.g. bush walk)		0.582			
d.	Participating in adventure sport was important (e.g. bungee jumping)		0.475			
	Factor 6: history	4.49			0.874	65.824
b.	Important to travel to different historical towns in Mpumalanga (e.g. Pilgrim's Rest)		0.893			
a.	Interested to learn about the history of Mpumalanga		0.884			
c.	Important to travel to different mining towns (e.g. Graskop) during stay		0.799			
d.	Important to visit some of the museums in Mpumalanga (e.g. Jock of the Bushveld)		0.645			
	Factor 7: culture	4.93			0.919	79.459
b.	Keen to learn about new cultures while on holiday		0.941			
a.	Interested to visit a cultural attraction during this holiday (e.g. cultural village)		0.899			
c.	Important for you to visit local arts and crafts stalls while on holiday		0.831			
	Factor 8: escape	5.59			0.905	74.107
c.	Experience a change of pace from my everyday life.		0.964			
b.	To experience a change in my daily routine		0.906			
a.	Get away from the demands of home		0.849			
d.	Experience a change from a busy work life		0.703			
	Factor 9: learning	4.71				
d.	Important to learn about nature during trip		0.942	0.959		85.413
a.	Important to increase your knowledge during this holiday		0.926			
b.	Important to learn about the heritage of the province		0.925			
c.	Important to learn about wildlife during trip		0.903			

Table 3 Factor analysis results

bonding." All the benefits had coefficients for asymmetry and kurtosis between −2 and +2 and are therefore considered to follow a normal univariate distribution (George and Mallery, 2010). The next phase of analysis was to determine whether there were statistically significant differences between residential origins with regard to benefits sought. The Kruskal–Wallis test was used and the following hypotheses were tested:

H0: There is no statistically significant difference between the respondents' residential origin and each of the benefits measured.

H1: There is a statistically significant difference between the respondents' residential origin and each of the benefits measured.

The Kruskal–Wallis test statistics results are illustrated in Table 5.

There was a difference between the origin of residence groups at the 1% level of significance with regard to benefits: "spending time with loved ones," "social bonding," "relaxing in nature," "natural environment," "adventure," "history," "culture," "escape" and "learning." Respondents originating from Mpumalanga Province sought spending time with loved ones (mean rank = 231.25) and relaxing (mean rank = 219.75), while tourists originating from Limpopo Province sought social bonding (mean rank = 274.24). With regard to international tourists, they sought spending time in a natural environment, looking for adventure, learning about history, experiencing culture and learning more about the destination (mean rank = 288.89, 237.48, 282.21, 280.90 and 292.84, respectively). In the third phase of analysis, benefit dimension scores were used to profile market segments. The third stage entailed performing a cluster analysis to determine benefits that would form segments.

4.3 Identification of benefit segments: cluster analysis

Using the SPSS software package, a two-step cluster analysis was conducted. Two-step clustering identifies the groupings by running pre-clustering first and then using hierarchical methods. The statistical clustering procedure led to a two-cluster solution that was supported by the silhouette measure of cohesion and separation (Bacher *et al.*, 2004, p. 4). Cluster quality was reported through the silhouette measure of cohesion and separation (Lewis *et al.*, 2012, p. 1871) that was acceptable (average silhouette 0.3) as indicated in Figure 3.

Table 4	Benefits sought while visiting Mpumalanga							
Benefits	*Valid number*	*Mean*	*Median*	*Std. deviation*	*Skewness*	*Std. error of skewness*	*Kurtosis*	*Std. error of kurtosis*
Spending time with family	399	3.55	3.75	1.58	0.20	0.12	−0.83	0.24
Social bonding	400	5.12	5.5	1.44	−0.56	0.12	−0.13	0.24
Relaxation	400	5.10	5	1.55	−0.44	0.12	−0.55	0.24
Natural environment	400	5.75	5.67	1.05	−0.56	0.12	0.67	0.24
Adventure	400	3.53	3.5	1.56	0.00	0.12	−0.73	0.24
History	400	4.49	4	1.58	0.07	0.12	−0.86	0.24
Culture	400	4.93	5	1.62	−0.23	0.12	−0.99	0.24
Escape	400	5.59	6	1.43	−0.84	0.12	0.09	0.24
Learning	400	4.71	4.5	1.69	−0.04	0.12	−1.04	0.24

Table 5	Testing for statistical differences between respondents' residential origin with regard to benefits sought		
Constructs	*Chi-square*	*df*	*Asymp. sig.*
Benefit_spend	18.938	5	0.002
Benefit_social	25.449	5	0.000
Benefit_relax	25.769	5	0.000
Benefit_nature	113.216	5	0.000
Benefit_adventure	34.547	5	0.000
Benefit_history	93.073	5	0.000
Benefit_culture	89.019	5	0.000
Benefit_escape	33.481	5	0.000
Benefit_learning	114.779	5	0.000

Model Summary

Algorithm	TwoStep
Inputs	22
Clusters	2

Cluster Quality

Silhouette measure of cohesion and separation
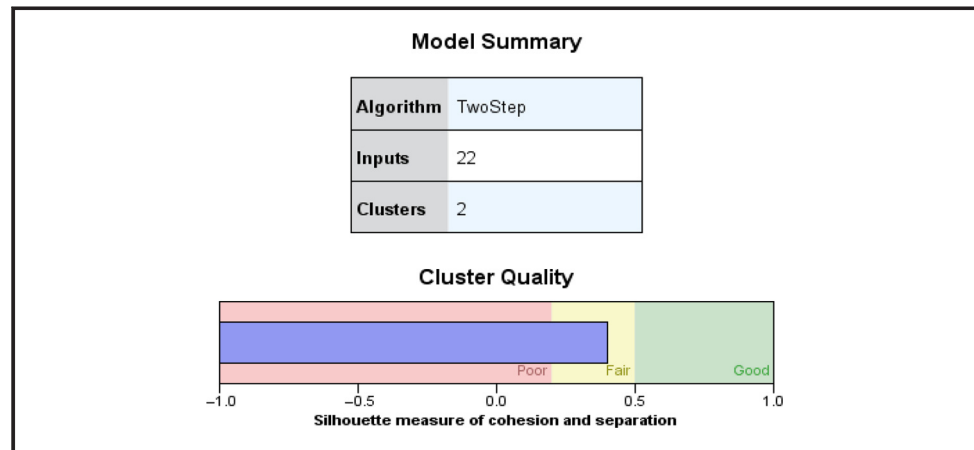
Elements that were of high importance in forming these two clusters were origin of residence (importance = 1), culture (importance = 0.56), spending during holiday (importance = 0.61), natural environment (importance = 0.62), history (importance = 0.71) and learning (importance = 0.75). The cluster analysis provided a solution of two clusters, with 283 (75.5%) of the respondents grouped in cluster 1 and 92 (24.5%) in Custer 2. Based on the most sought-after benefits, Cluster 1 was labelled "nature–escapist" and Cluster 2 was labelled "cultured–naturist".

To describe the segments' profiles in more detail, tourist satisfaction data and data on travel behaviour were used to cross-tabulate each cluster; inputs are presented in order of importance in forming the two clusters (Table 6 for results).

The nature–escapist segment (79% of the sample) forms the largest segment of tourists identified in this study. Tourists in this segment seek spending time in a natural environment (overall mean of 6.41), to escape daily routine and relax in natural surroundings (mean rating 5.78 and 5.17, respectively). This segment comprises mainly females spending three nights on average and who travelled in a group of eight. The nature–escapist segment, relied on blogs, TripAdvisor, social media, video clips, travel magazines and travel brochures as information sources consulted while planning their trip to Mpumalanga. The nature–escapist segment comprises predominantly domestic tourists (Gauteng 70.6%). Tourists in this segment spent between R5,001 and R10,000 during their trip to Mpumalanga. The nature–escapist segment was satisfied with the hospitality received, cleanliness of the accommodation, service by the accommodation establishment, general infrastructure and overall stay in Mpumalanga. Low levels of satisfaction were related to safety and security, number of attractions and leisure activities available, availability of destination information, overall service and affordability of attractions. The second cluster identified was characterised as "cultured–naturist." Compared to nature–escapist, the cultured–naturist segment valued experiences specific to Mpumalanga such as culture (learn about new cultures, visit a cultural attraction and visit local arts and crafts stalls); and spending time in nature and learning (about nature, heritage and wildlife). The cluster is relatively smaller compared to nature–escapist (21% of the sample). The cultured–naturist tourists referred to travel magazines and brochures for travel information while planning their trip. The cultured–naturist cluster is characterised by longer stays. Around 80% of tourists spent R10,000 and more during their visit to Mpumalanga. The cultured–naturist

	Cluster solutions	
Elements	Cluster 1 Nature–escapist	Cluster 2 Cultured–naturist
Size	$n = 293$	$n = 78$
Percentage of sample	79	21
Traditional marketing source[1]	1.97	5.92
Travel planning	3.58	6.84
Origin of residence	Gauteng	Not SA residents
Percentage of sample	70.6	93.6
Benefit history	3.97	6.31
Online marketing sources	2.54	5.05
Benefit learning	4.17	6.55
Benefit culture	4.44	6.70
Tourist satisfaction[1]	5.65	6.71
Spending money	R5,001–R10,000 (41.6%)	R10,000+ (82.1%)
Tourist satisfaction[2]	6.11	6.83
Benefit escape	5.78	4.83
Benefit adventure	3.33	4.26
Number travelling in a group	7.76	13.40
Benefit social bonding	5.01	5.60
Online websites	1.32	1.70
Highest level of education	Graduate (36.5%)	Graduate (47.4%)
Benefit natural environment	6.41	6.68
Benefit relax	5.17	4.70
Number of nights spent in Mpumalanga	3.81	4.29
Gender	Female (54.6%)	Male (56.4%)
Benefit spending time with loved ones	3.55	3.32
Traditional marketing source[2]	1.56	1.72

Table 6 Cluster analysis results of travel behaviour, tourist satisfaction and benefits sought as input predictors of tourists travelling to Mpumalanga

segment comprises predominantly international tourists and males. Cultured–naturist tourists put more effort into their decision-making, which was characterised by a high level of planning (mean rating 6.84) for the trip to Mpumalanga.

The fourth stage of data analysis entailed performing a logistic regression to determine the odds of benefits predicting a visit to an attraction or participation in an activity.

4.4 Logistic regression

Logistic regression is a "specific form of regression that is formulated to predict and explain a binary (two group) categorical variable rather than a metric dependent measure" (Hair et al., 2010, p. 341). It assists in understanding and testing complex relationships among variables and in forming predictive equations (King, 2008, p. 358). The number of respondents included in the models was 394 because a case-wise deletion process was used for missing data on any of the variables (Baraldi and Enders, 2010, p. 10). The associated standardised beta-coefficients and odds ratios (in brackets) and their level of statistical significance were tested at 0.05 and 0.01 significance level. For odds ratios smaller than 1, the ratios were not included in the results for interpretation. The odds ratios of the statistically significant predictors (benefits) were found for each attraction visited and each activity participated in. With all other variables kept constant, the odds of tourists visiting an attraction or participating in an activity and the odd ratios are presented in Table 7.

Only benefits, which produced positive relationships, are presented. Table 7 indicates that benefits can determine the odds of tourists visiting attractions or participating in an activity. The binary logistics results can be applied to offer management more rich information on

Table 7	Odds of tourists visiting an attraction or participating in an activity	
Benefit	Attraction	Activity
Natural environment	The odds of visiting Mac-Mac Falls increased by 65.2% with each unit increase in the benefit *natural environment* The odds of visiting the Kruger National Park increased by 63.7% with each unit increase in the benefit *natural environment* The odds of visiting the Lisbon Falls increased by 48% with each unit increase in the benefit *natural environment*	
Social bonding		The odds of making use of hiking trails increased by 35% with each unit increase in the benefit *social bonding*
Culture	The odds of visiting curio shops increased by 41% for each unit increase in the benefit *culture*	
History	The odds of visiting Three Rondavels increased by 36% for each unit increase in the benefit *history* The odds of visiting curio shops increased by 35% for each unit increase in the benefit *history*	
Relaxation		The odds of making use of hiking trails increased by 30.8% with each unit increase in the benefit *relaxation*

benefit segments. In the following section, the management implications of the results are discussed, and the framework is presented.

5. Discussion of the benefit segmentation framework

Marketing planning calls for destination management to have knowledge about the targeted segment to develop promotional messages that can evoke a positive reaction from the target market. Knowledge about the benefits tourists seek can assist destination management in using such information to develop promotional messages. Therefore, it focuses promotional messages on content to be communicated to the target market. Content is used as a strategy to target and retain a segment by creating and distributing valuable, relevant content through promotional messages to meet specific objectives (Siller and Zehrer, 2016).

The proposed benefit segmentation framework was developed to streamline product development using benefits, activities and attractions for the identified segments. Consequently, it can contribute towards promoting such offerings through the information sources identified. In this way, the framework would ensure that the appropriate content reaches the intended market segment using a platform or information source the segment consults. By integrating the results of the information sources consulted, factor analysis, cluster analysis, as well as logistic regression, the study reported on here culminated in a three-stage benefit segmentation framework.

The framework begins the process by identifying a benefit segment, followed by product development, and lastly, distribution of promotional messages. Stage 1 of the framework identifies benefit segments through factor analysis and cluster analysis. Stage 2, product development, makes use of benefits identified in Stage 1 through logistic regression to predict the odds of tourists visiting an attraction or participating in an activity to incorporate these activities or attractions in product development, thus tailoring the product offering for the identified benefit segment in Stage 1. Stage 3 makes use of information sources indicated as having been used while planning a trip to a destination to promote the product developed, emphasising the benefits tourists seek from visiting a destination. As an illustration, the framework is applied to benefit Segments 1 and 2 identified in the study, as indicated in Figures 4 and 5.

SEGMENT 1

Benefits sought by segment 1 are: natural environment, relax, social bonding & culture

PRODUCT DEVELOPMENT

Based on the logistic regression results, segment 1 have high odds of visiting or participating in the following attractions or activities:

Kruger National Park, Mac-Mac Falls, Lisbon Falls, curio shops, hiking

DISTRIBUTION OF PROMOTIONAL MESSAGES

(based on information sources segment 1 consulted)

TripAdvisor, blogs, social media YouTube

SEGMENT 2

Benefits sought by segment 2 are:natural environment, social bonding, culture, learning & history

PRODUCT DEVELOPMENT

Based on the logistic regression results, segment 2 have high odds of visiting or participating in the following attractions or activities:Three Rondavels,Curio shops , Hiking , Birdwatching & River rafting

DISTRIBUTION OF PROMOTIONAL MESSAGES

(based on information sources segment 2 consulted)

Travel Magazines, Brochures, TripAdvisor, blogs, social media and YouTube

The framework makes available identifiers that would enable Mpumalanga Tourism to know what to market to whom. By using the aforementioned benefits for segmentation purposes, a destination is able to specialise in the needs of the target market and focus effective messages for that specific group (Dolnicar, 2008). A destination such as Mpumalanga would therefore potentially be able to effectively position itself in the minds of the segments and become a destination of choice for the targeted segment. There are managerial evaluation criteria requirements for segments to be considered useful by tourism managers; for example, a segment should tie in with destination strength (Dolnicar, 2008; Tsiotsou and Goldsmith, 2012; Kotler *et al.*, 2013). In addition, a segment should be reachable and, therefore, allow destination managers to communicate effectively with the segment through promotions. The benefit segmentation framework addresses these two evaluation criteria.

Thus, to some extent, the suggested benefit segmentation framework could be useful to Mpumalanga as a NBT destination. It is suggested that segmenting tourists visiting NBT destinations enable management to have a better understanding of the market and to tailor the product offering for the segment (Tangeland *et al.*, 2013). The selected segment believes that the product will provide benefits that will satisfy unmet needs and wants

(Tangeland *et al.*, 2013). Christensen *et al.* (2016) emphasise that it is critical to discover for each specific purchase what one wants to achieve and why. Benefit segmentation is helpful in this regard, as it provides reasons why tourists spend money on items. When the benefits that tourists seek are identified and communicated through promotional messages, this can produce a depth of marketing position within the defined segment (Dolnicar, 2008). However, Frochot and Morrison (2000) warn that benefit segmentation needs to be undertaken regularly, as there can be changes over time, and so continuous position adjustment within the market is necessary.

6. Conclusion

Designing promotional messages with the intention of capturing the attention of a destination's market segment relies on the destination management's understanding of its target market. A nature-based destination such as Mpumalanga Province has the potential to position itself as a destination of choice and has identified this as an objective. To achieve a certain position within the market, the management of Mpumalanga needs to implement a process of segmentation. Out of the nine benefit dimensions confirmed by factor analysis, surprisingly the "nature" benefit dimension that Mpumalanga is often associated with accounted for only 50% of variance explained. The "learning" benefit had the strongest explanatory power (85.413% of variance explained); therefore, it can be regarded as the distinguishing reason for visiting the province. The second-strongest explanatory power (79.459% of variance explained) was "culture," which is therefore also an important distinguishing theme for visiting Mpumalanga. Literature suggests that it is inadvisable to presume a segment based on a destination type or offering. Therefore, benefits sought by tourists provide sufficient basis for the existence of true market segments. Furthermore, the following findings were evident: nature was not the only benefit sought; escape and social bonding were also sought by tourists visiting Mpumalanga. A two-cluster analysis produced two different clusters based on benefits sought by tourists visiting the province. These two different clusters are "nature–escapist" and "cultural-naturist." A large segment (79%) seemed to value "nature and escape" benefits more, hence were named the "nature–escapists." So, destination management needs to the focus marketing initiatives promoting the peaceful, calming and pleasant environment in Mpumalanga for the nature–escapist segment. From this, we conclude that the tourism industry in Mpumalanga could profit from a more diversified product offering that incorporates nature, culture and learning, given the high potential demand for these benefits identified. Even though the cultured–naturist segment accounts for only 21% of the sample, these tourists spent more money and more nights in the province. Therefore, this segment is valuable, and it would be beneficial for more of this segment to visit Mpumalanga. As these tourists consulted the internet as a source of information, it would be valuable for Mpumalanga to grow this segment using the internet to promote the destination providing potential tourists with relevant information to assist in decision-making.

The binary logistic results produced positive relationships in terms of which various benefits predicted the odds of tourists visiting an attraction or participating in an activity. The study reported on here not only investigated the benefits tourists sought, but linked benefits with activities tourists participated in and attractions they visited at the destination. By way of recommendation, a four-stage benefit segmentation framework was developed, which is grounded on benefits sought, the odds of visiting an attraction or participating in an activity and information sources consulted while planning for a trip. This framework suggests stages that can be followed when planning for marketing and developing products for identified benefit segments, in that way offering a destination the possibility of effectively promoting the right product by means of persuasive benefit messages to capture the attention of the intended market.

Mpumalanga Province thus has the opportunity to be a destination of choice in the mind of the potential tourist and to spend its marketing budget in the most effective way. The four-stage framework could potentially be applied by any destination or province in South Africa using benefits as a segmentation approach. Further research could focus on the benefits sought or identified and refining them for other settings by testing the newly synthesised benefit segmentation framework in Mpumalanga Province and adapting the framework for use in other provinces in South Africa. To persuade tourists to visit a destination, destination managers need to anticipate how tourists will respond to marketing messages. Benefit segmentation allows a destination to understand the behaviour of tourists and to develop marketing messages that will attract the attention of potential tourists. Therefore, the overall marketing objective of a destination needs to be based on an understanding of the benefits a segment wants to gain from a visit, the product offering supporting tourist benefits and how the segment will be accessed. The suggested benefit segmentation framework attempts to offer such an understanding .

References

Almeida, A.M.M., Correia, A. and Pimpão, A. (2014), "Segmentation by benefits sought: the case of rural tourism in Madeira", *Current Issues in Tourism*, Vol. 17 No. 9, pp. 813-831.

Anholt, S. (2009), *Handbook on Tourism Destinations Branding*, Madrid: World Tourism Organization.

Armstrong, G., Adam, S., Denize, S. and Kotler, P. (2014), *Principles of Marketing*, Sydney: Pearson Australia.

Bacher, J., Wenzig, K. and Vogler, M. (2004), *SPSS TwoStep Cluster: A First Evaluation*, Berlin: Lehrstuhl für Soziologie.

Baraldi, A.N. and Enders, C.K. (2010), "An introduction to modern missing data analyses", *Journal of School Psychology*, Vol. 48 No. 1, pp. 5-37.

Bennett, P.D, & American Marketing Association (1995), *Dictionary of Marketing Terms*, Chicago, IL: NTC Business Books.

Breiby, M. (2014), "Exploring aesthetic dimensions in a nature-based tourism context", *Journal of Vacation Marketing*, Vol. 20 No. 2, pp. 163-173.

Buhalis, D. (2000), "Marketing the competitive destination of the future", *Tourism Management*, Vol. 21 No. 1, pp. 97-116.

Camira Statistical Consulting Services (2009), "Analysing empirical data. Unpublished workshop notes".

Chang, L. (2014), "The relationship between nature-based tourism and autonomic nervous system function among older adults", *Journal of Travel Medicine*, Vol. 21 No. 3, pp. 159-162.

Chen, J.S. (2003), "Market segmentation by tourists' sentiments", *Annals of Tourism Research*, Vol. 30 No. 1, pp. 178-193.

Christensen, C., Hall, T., Dillon, K. and Duncan, D. (2016), "Know your customers' jobs to be done", *Harvard Business Review*, Vol. 94 No. 9, pp. 54-62.

Comfrey, A.L. and Lee, H.B. (1992), *A First Course in Factor Analysis*, Hillsdale, NJ: Lawrence Erlbaum.

Cooper, C. (2012), *Essentials of Tourism*, Harlow: Prentice Hall.

Dibb, S., Simkin, L., Pride, W.M. and Ferrell, O.C. (2012), *Marketing: Concepts and Strategies*, 6th ed. London: Cengage.

Dolnicar, S. (2004), "Beyond "commonsense segmentation": a systematics of segmentation approaches in tourism", *Journal of Travel Research*, Vol. 42 No. 3, pp. 244-250.

Dolnicar, S. (2005), "Understanding barriers to leisure travel: tourist fears as a marketing basis", *Journal of Vacation Marketing*, Vol. 11 No. 3, pp. 197-208.

Dolnicar, S. (2008), *Market Segmentation in Tourism, in Tourism Management: analysis, Behaviour and Strategy*, Woodside, AG & Martin, D. (Eds) CABI, Cambridge: pp. 129-150.

Dolnicar, S. and Grün, B. (2008), "Challenging factor–cluster segmentation", *Journal of Travel Research*, Vol. 47 No. 1, pp. 63-71.

Dong, E., Wang, Y., Morais, D. and Brooks, D. (2013), "Segmenting the rural tourism market: the case of potter county, Pennsylvania, USA", *Journal of Vacation Marketing*, Vol. 19 No. 2, pp. 181-193.

Fredman, P. and Tyrväinen, L. (2010), "Frontiers in nature-based tourism", *Scandinavian Journal of Hospitality and Tourism*, Vol. 10 No. 3, pp. 177-189.

Frochot, I. (2005), "A benefit segmentation of tourists in rural areas: a Scottish perspective", *Tourism Management*, Vol. 26 No. 3, pp. 335-346.

Frochot, I. and Morrison, A.M. (2000), "Benefit segmentation: a review of its applications to travel and tourism research", *Journal of Travel & Tourism Marketing*, Vol. 9 No. 4, pp. 21-45.

Fyall, A., Garrod, B. and Tosun, C. (2006), "Destination marketing: a framework for future research", in *Progress in Tourism Marketing*, Kozak, M & Andreau, L. (Eds) Oxford: Elsevier: pp. 75-86.

George, R. (2004), *Marketing South African Tourism*, 2nd ed., Cape Town: Oxford University Press.

George, D. and Mallery, M. (2010), *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 Update*, 10th edition. Boston, MA: Pearson.

Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010), *Multivariate Data Analysis: A Global Perspective*, 7th ed., New York, NY: Pearson Education.

Haley, R.I. (1968), "Benefit segmentation: a decision-oriented research tool", *Journal of Marketing*, Vol. 32 No. 3, pp. 30-35.

Hoek, J., Gendall, P. and Esslemont, D. (1996), "Market segmentation: a search for the Holy Grail", ? *Journal of Marketing Practice: Applied Marketing Science*, Vol. 2 No. 1, pp. 25-34.

Hyde, K. (2008), "Tourist information search", In Kozak, M. & Decrop, A. (Eds). *The Routledge Handbook of Tourism Marketing*, New York, NY: Routledge, 50-65.

Jang, S.C., Morrison, A.M. and O'Leary, J.T. (2002), "Benefit segmentation of Japanese pleasure travellers to the USA and Canada: selecting target markets based on the profitability and risk of individual market segments", *Tourism Management*, Vol. 23 No. 4, pp. 367-378.

Kim, W.G., Park, Y., Gazzoli, G. and Sheng, E. (2011), "Benefit segmentation of international travellers to Macau", *Journal of Quality Assurance in Hospitality & Tourism*, Vol. 12 No. 1, pp. 28-57.

King, J.E. (2008), *Binary Logistic Regression, in Best Practices in Quantitative Methods*, Osborne, J. (Ed.) London: Sage: pp. 358-384.

Kotler, P.A., Armstrong, G., Harris, L. and Piercy, N. (2013), *Principles of Marketing*, Harlow: Pearson.

Kruger, M. and Saayman, M. (2010), "Travel motivation of tourists to Kruger and Tsitsikamma national parks: a comparative study", *South African Journal of Wildlife Research*, Vol. 40 No. 1, pp. 93-102.

Kruger, M. and Saayman, M. (2014), "The determinants of visitor length of stay at the Kruger national park", *Koedoe*, Vol. 56 No. 2, pp. 1-11. Available at: www.scielo.org.za/scielo.php?pid=S0075-64582014000200003&script=sci_arttext&tlng=pt

Kruger, M., Viljoen, A. and Saayman, M. (2016), "Who visits the Kruger national park, and why? Identifying target markets", *Journal of Travel & Tourism Marketing*, Vol. 34 No. 3, pp. 1-29., doi: 10.1080/10548408.2016.1156618.

Laarman, J.G. and Gregersen, H.M. (1996), "Pricing policy in nature-based tourism", *Tourism Management*, Vol. 17 No. 4, pp. 247-254.

Lewis, J.M., Ackerman, M. and De Sa, V. (2012), "Human cluster evaluation and formal quality measures: a comparative study", *Proceedings of the 34th Annual Meeting of the Cognitive Science Society (CogSci)*: pp. 1870-1875.

McCabe, S. (2009), *Marketing Communications in Tourism and Hospitality*, England: Butterworth Heinemann.

McKercher, B. (2016), "Towards a taxonomy of tourism products", *Tourism Management*, Vol. 54, pp. 196-208.

MacCallum, R.C., Widaman, K.F., Zhang, S. and Hong, S. (1999), "Sample size in factor analysis", *Psychological Methods*, Vol. 4 No. 1, pp. 84-99.

Margaryan, L. (2018), "Nature as a commercial setting: the case of nature-based tourism providers in Sweden", *Current Issues in Tourism*, Vol. 21 No. 16, pp. 1893-1911.

Mehmetoglu, M. (2007), "Typologising nature-based tourists by activity: theoretical and practical implications", *Tourism Management*, Vol. 28 No. 3, pp. 651-660.

Middleton, V.T.C., Fyall, A., Morgan, M. and Ranchhod, A. (2009), *Marketing in Travel and Tourism*, 4th ed. Oxford: Butterworth-Heinemann.

Molera, L. and Albaladejo, I. (2007), "Profiling segments of tourists in rural areas of South-Eastern Spain", *Tourism Management*, Vol. 28 No. 3, pp. 757-767.

MTPA (Mpumalanga Tourism Parks Agency) (2014), "Region selection", Available at www.mpumalanga.com/discover/regions (accessed 31 January 2014).

MTPA (Mpumalanga Tourism Parks Agency) (2016), "Tourism business division strategic overview", Available at: www.mtpa.co.za/index.php?tourism_marketing±1954 (accessed 30 November 2016).

NDT (National Department of Tourism) (2012), "Domestic tourism growth strategy 2012–2020", Pretoria.

Newsome, D., Moore, S. and Dowling, R. (2013), *Natural Area Tourism: ecology, Impacts and Management*, 2nd ed., Bristol: Channel View.

Nunnally, J.C., Bernstein, I.H. and Berge, J.M.T. (1967), *Psychometric Theory*, Volume 2. New York, NY: McGraw-Hill.

Pampel, F.C. (2000), *The Logic of Logistic Regression, in Logistic Regression*, Pampel, FC (Ed.), Thousand Oaks, CA: Sage.

Pesonen, J., Laukkanen, T. and Komppula, R. (2011), "Benefit segmentation of potential well-being tourists", *Journal of Vacation Marketing*, Vol. 17 No. 4, pp. 303-314.

Proctor, T. (2014), *Strategic Marketing: An Introduction*, Hoboken: Taylor and Francis.

Rudež, H.N., Sedmak, G. and Bojnec, Š. (2013), "Benefit segmentation of seaside destination in the phase of market repositioning: the case of portorož", *International Journal of Tourism Research*, Vol. 15 No. 2, pp. 138-151.

SA Tourism (2016), "Regions in South Africa: top 10 regions", Available at: www.southafrica.net/za/en/top10/entry/top-10-regions-in-south-africa (accessed 22 November 2016).

Sarigöllü, E. and Huang, R. (2005), "Benefits segmentation of visitors to Latin America", *Journal of Travel Research*, Vol. 43 No. 3, pp. 277-293.

Şchiopu, D. (2010), "Applying twostep cluster analysis for identifying bank customers' profile", *Buletinul*, Vol. 62, pp. 66-75.

Scholtz, M., Kruger, M. and Saayman, M. (2013), "Understanding the reasons why tourists visit the kruger national park during a recession", *Acta Commercii*, Vol. 13 No. 1, pp. 1-9, doi: 10.4102/ac.v13i1.168.

Siller, H & Zehrer, A (Eds) (2016), *Entrepreneurship Und Tourismus: unternehmerisches Denken Und Erfolgskonzepte Aus Der Praxis*, Vienna: Linde Verlag GmbH.

Slabbert, E. and Laurens, M. (2012), "Motivation-based clustering: an empirical study of visitors to kruger national park in South Africa", *Tourism & Management Studies*, Vol. 12 No. 2, pp. 1122-1126.

Sparks, B.A., Perkins, H.E. and Buckley, R. (2013), "Online travel reviews as persuasive communication: the effects of content type, source, and certification logos on consumer behaviour", *Tourism Management*, Vol. 39, pp. 1-9.

Tangeland, T., Vennesland, B. and Nybakk, E. (2013), "Second-home owners' intention to purchase nature-based tourism activity products: a Norwegian case study", *Tourism Management*, Vol. 36, pp. 364-376.

The Business Dictionary (2015), "Benefit segmentation", Available at: www.businessdictionary.com/definition/benefit-segmentation.html (accessed 28 October 2015).

Tsiotsou, RH & Goldsmith, RE (Eds). (2012), *Strategic Marketing in Tourism Services*, Bingley: Emerald Group.

Urry, J. (2011), *The Tourist Gaze*, 3rd ed., Los Angeles: Sage.

Uysal, M., McDonald, C.D. and Martin, B.S. (1994), "Australian visitors to US national parks and natural areas", *International Journal of Contemporary Hospitality Management*, Vol. 6 No. 3, pp. 18-24.

Webster, F.E. Jr. (2009), "Marketing is management: the wisdom of Peter Drucker", *Journal of the Academy of Marketing Science*, Vol. 37 No. 1, pp. 20-27.

Welman, C., Kruger, F. and Mitchell, B. (2009), *Research Methodology*, 5th ed., Cape Town: Oxford.

Winchenbach, A., Hanna, P. and Miller, G. (2019), "Rethinking decent work: the value of dignity in tourism employment", *Journal of Sustainable Tourism*, Vol. 27 No. 7, pp. 1026-1043.

Yannopoulos, P. and Rotenberg, R. (2000), "Benefit segmentation of the near-home tourism market: the case of upper New York state", *Journal of Travel & Tourism Marketing*, Vol. 8 No. 2, pp. 41-55.

Zikmund, W.G., Babin, B.J., Carr, J.C. and Griffin, M. (2010), *Business Research Methods*, 8th ed., Fort Worth, TX: Dryden Press.

Further reading

Beh, A. and Bruyere, B.L. (2007), "Segmentation by visitor motivation in three Kenyan national reserves", *Tourism Management*, Vol. 28 No. 6, pp. 1464-1471.

Chen, C.C., Wang, Y.C., Lin, Y.H. and Jiang, J.K. (2014), "Segmenting Taiwanese tourists to China by ethnic identity and generation", *Journal of Vacation Marketing*, Vol. 20 No. 2, pp. 181-191.

Christ, C., Hillel, O., Matus, S. and Sweeting, J. (2003), *Tourism and Biodiversity: mapping Tourism's Global Footprint*, Conservation International. (CI).

Dixon, A.W., Backman, S., Backman, K. and Norman, W. (2012), "Expenditure-based segmentation of sport tourists", *Journal of Sport & Tourism*, Vol. 17 No. 1, pp. 5-21.

Inbakaran, R., George, B., Jackson, M. and Melo, F. (2012), "Identifying resort tourism market segments based on visitor demographics: a study", *Academica Turistica*, Vol. 5 No. 2, pp. 85-94.

Kastenholz, E., Davis, D. and Paul, G. (1999), "Segmenting tourism in rural areas: the case of North and Central Portugal", *Journal of Travel Research*, Vol. 37 No. 4, pp. 353-363.

Kim, S.S. and Prideaux, B. (2005), "Marketing implications arising from a comparative study of international pleasure tourist motivations and other travel-related characteristics of visitors to Korea", *Tourism Management*, Vol. 26 No. 3, pp. 347-357.

Li, M., Huang, Z. and Cai, L.A. (2009), "Benefit segmentation of visitors to a rural community-based festival", *Journal of Travel & Tourism Marketing*, Vol. 26 Nos 5/6, pp. 585-598.

Miličević, K., Mihalič, T. and Sever, I. (2017), "An investigation of the relationship between destination branding and destination competitiveness", *Journal of Travel & Tourism Marketing*, Vol. 34 No. 2, pp. 209-221.

Mok, C. and Iverson, T.J. (2000), "Expenditure-based segmentation: Taiwanese tourists to Guam", *Tourism Management*, Vol. 21 No. 3, pp. 299-305.

Olson, D.M., Dinerstein, E., Wikramanayake, E.D., Burgess, N.D., Powell, G.V., Underwood, E.C., D'amico, J.A., Itoua, I., Strand, H.E., Morrison, J.C. and Loucks, C.J. (2001), "Terrestrial ecoregions of the world: a new map of life on earth. A new global map of terrestrial ecoregions provides an innovative tool for conserving biodiversity", *BioScience*, Vol. 51 No. 11, pp. 933-938.

Park, D.B. and Yoon, Y.S. (2009), "Segmentation by motivation in rural tourism: a Korean case study", *Tourism Management*, Vol. 30 No. 1, pp. 99-108.

Pike, S. and Page, S.J. (2014), "Destination marketing organizations and destination marketing: a narrative analysis of the literature", *Tourism Management*, Vol. 41, pp. 202-227.

Reid, L.J. and Reid, S.D. (1997), "Traveler geographic origin and market segmentation for small island nations: the Barbados case", *Journal of Travel & Tourism Marketing*, Vol. 6 No. 3-4, pp. 5-22.

Sotiriadis, M. and Nduna, L. (2014), "Market segmentation of nature-based attractions: a framework for experience and activity-oriented segmentation", *Journal of Human Ecology*, Vol. 46 No. 1, pp. 63-71.

The Report: South Africa (2016), "Tourism", Available at: www.oxfordbusinessgroup.com/node/898078/reader (accessed 30 November 2016).

Thrane, C. and Farstad, E. (2012), "Nationality as a segmentation criterion in tourism research: the case of international tourists' expenditures while on trips in Norway", *Tourism Economics*, Vol. 18 No. 1, pp. 203-217.

World Economic Forum (2015), "The travel & tourism competitiveness index 2015: *t*&T as a resilient contribution to national development", Available at: http://reports.weforum.org/travel-and-tourism-competitiveness-report-2015/index-results-the-travel-tourism-competitiveness-index-ranking-2015/ (accessed 22 November 2016).

Corresponding author

Lesedi Tomana Nduna can be contacted at: ndunalt@unisa.ac.za