THE INFLUENCE OF THE ECONOMIC RECESSION ON VISITORS TO THE KRUGER NATIONAL PARK

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Abstract

The aim of this study was to identify the determinants of demand of visitors for the Kruger National Park (KNP) during a recession. From 355 questionnaires, the results revealed the following determinants that influenced visitors' demand for the Park: behavioural determinants as well as socio-demographic determinants. The results indicated that visitors to the KNP found that visiting the Park is a great way of getting away from their busy lifestyles (Gauteng Province), while visitors from Mpumalanga indicated that many of them considered visiting other tourism attractions. It was also found that visitors adapted their spending behaviour at the Park in order to afford a visit. This was the first time that the influence of determinants of tourism demand during a recession was determined. This information is important for SANParks, because it provides management with valuable insights into what strategic planning should be conducted in the event of a future recession. It was also found that the demand for visiting the KNP was not greatly influenced by the recession, because visitors could adapt their spending behaviour at the KNP. Furthermore, the study shows that visiting natural areas may have become a primary need or part of a lifestyle, especially during the 2008/2009 recessionary period.

Keywords

South African National Parks (SANParks); Kruger National Park (KNP); determinants of demand; recession; travel motives

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1. INTRODUCTION

According to the World Travel and Tourism Council (WTTC, 2009), the tourism industry employed over 225 million people around the world and generated 9.6% of the global GDP (Gross Domestic Product) in 2008, thus indicating the global importance of tourism. However, the 2008/2009 global economic recession, which started in July 2007, resulted in a slowdown of both developed and developing economies around the world (Fernando & Meedeniya, 2009; Song & Lin, 2010). This in turn has led to a global tourist arrival decline of 8% (Tourism-review, 2009). An economic recession is a period of repeated negative economic growth and is also referred to as a 'credit crunch' (Todd, 2008). Ellis (2005) claims that there are four visible stages of a recession. The first stage is when the economy is uniformly favourable and the second stage is marked by a modest slowdown in economic growth. During the third stage, consumers (including tourists) are starting to worry more and interest rates and inflation are higher. Stage four is a recession, in which a country's real GDP starts to decline, which might lead to higher levels of unemployment.

From a South African perspective, the recession led to an estimated 484 000 job losses during the period 2008/2009 (SA, 2009a). South African consumers were furthermore faced with additional economic pressures due to the increase in interest rates, fuel, electricity and food costs (Chakauya, Beyene & Chikwamba, 2009). The influence of the global recession during the period 2008/9 also affected the South African tourism industry. During this period, there were significant decreases in international arrivals, with a growing decline in the country's European and Asian markets. International tourists spent less, had a shorter length of stay and visited fewer provinces during their holiday, resulting in a worsening of total seasonal spread. In addition, the domestic travel market also showed changes in travel behaviour and decreased by 8% mainly due to the decline in visiting family and friends, holidays and business trips (StatsSA, 2009a). This had a significant influence on the hospitality sector in the country and the total number of foreign and domestic tourist room nights in all accommodation establishments decreased by almost 9% compared to the same period before the recession (StatsSA, 2009b).

However, while the aftermath of the global economic crisis is apparent, its negative repercussions did not have a significant effect on nature-based travel to national parks in the USA and South Africa (Davidson, 2010; Seattletimes, 2010). In the case of South African National Parks, statistics showed that tourism arrivals at Kruger National Park (KNP) grew from 800 000 visitors in 2001 to 1 400 000 in 2008, and this growth was sustained, with income growing by 9.39% and the overall Accommodation Unit Occupancy increasing by 1.6% over the 2008/2009 period (SANParks, 2009). The reasons for this growth prompted this research.

Lickorish and Jenkins (1997), Page and Connell (2009) and Weaver and Lawton (2006) point out that there are various factors that stimulate travel to tourism destinations, such as economic, social, demographic, technological and political factors. Weaver and Lawton (2006) also emphasise that these factors are interdependent and should not be considered in isolation. Identifying the determinants as well as motives that play a role in visitors' desire to travel to the KNP can therefore assist management in focusing on key areas to enhance the Park's appeal and attract more people to the Park, especially during tough economic times (Faulkner & Valerio, 2003). Knowledge of the determinants can also ensure that the Park sustains its accommodation and visitor return rate. This is especially important, because SANParks generates 80% of its total revenue through accommodation and admission fees in the KNP (Mabunda & Wilson, 2009), thus indicating the KNP's importance.

Based on this, the purpose of this study is to identify the determinants of tourism demand at the

KNP and the influence of these factors on visitors' decision to travel to the Park during the 2008/2009 recession period.

The KNP is one of the world's most renowned wildlife reserves. It was proclaimed in 1926 (SA Places, 2010; SANParks, 2009). The Park provides an array of accommodation types (which include tented camps, chalets, bungalows and guesthouses) and recreational activities (such as game drives, photography, birding, accommodation, swimming pools and restaurants), with easy access from two South African provinces (Mpumalanga and Limpopo) as well as a small airport just outside one of the main rest camps, Skukuza. The KNP is in great demand, since it is regarded as an all-inclusive holiday destination that provides tourists with a unique nature and leisure experience (Saayman & Saayman, 2009). The KNP attracts over one million visitors per annum and falls into the top five international tourist destinations in the country (Cook, Yale & Marqua, 2010; Eagles & McCool, 2002; Van der Merwe & Saayman, 2008; Uysal, McDonald & Martin, 1994).

This article is structured in the following manner: the introduction will be followed by a literature study, which will create a better understanding of tourism demand and the factors that influence this demand; this will be followed by the method of research and results, after which there will be an in-depth discussion and, lastly, a conclusion will be reached.

2. LITERATURE STUDY

In recent years, the demand for tourism-related activities, especially activities based on interactions between tourists and wildlife, has experienced a strong growth (Davis, Banks, Birtles, Valentine & Cuthill, 1997). Orams (1996) divides the spectrum of tourist-wildlife interactions into two categories. The first is captive animals as in zoos and aviaries, while the second group is semi-captive animals as is the case with wildlife parks, including national parks and reserves. It has become clear through research done by Eagles (2007) that a trend is forming whereby more and more people prefer to visit these natural areas. Research shows that accurate forecasting of tourism demand is of paramount importance (Witt & Witt, 1995). Archer (1987), as cited by Witt and Witt (1995), strengthens this argument by stating that tourism products are perishable because empty beds cannot be stockpiled and used at a later stage. To improve the understanding of how demand works, one therefore has to look into the underlying factors influencing demand. Burkart and Medlik (1981), as cited by Page and Connell (2009), divide these influences into two components. These are internal factors or travel motives (including personal factors such as personality and pre-perceptions) and external factors or determinants of demand (cultures, demographics, and income, for example).

Lickorish and Jenkins (1997) and Page and Connell (2009) group the external factors that influence demand (the determinants of demand) into main categories. These are economic, social, and political and motivational determinants. A number of factors influencing demand are shown in **TABLE 1** below.

TABLE 1: The factors influencing demand

Determinants	Researcher(s)	Function/Findings					
Age	Jang and Wu (2006)	Older people experience an increase in disposable income, have more flexibility with their time and are not subjected to seasonality (data collected from senior citizens).					
	Hvengaard and Deadren (1998)	 Older people visit national parks to experience nature, while younger visitors want to spend time with their families (data collected from individuals through survey). 					
	Lohman (2004); Weaver and Lawton (2006)	 Older growing society of travellers, because of longer life expectancy while there is a decline in number of children because of lower fertility in many industrial countries. 					
	Bhatia (2006)	Younger groups participate more in travel because of more income.					
Holiday entitlements	Page and Connell (2009)	 Number of holiday entitlements increased over the past two centuries, creating ample leisure time, resulting in travel. 					
	Bhatia (2006)	• Leisure time is the strongest influence on tourism demand.					
	Weaver and Lawton (2006)	 People working on flexitime can do their work whenever they have time to, meaning that they can improve planning for holidays, thus increasing demand. 					
Education	Bhatia (2006)	Better educated people in society have a stronger will to travel, thus increasing the demand for travel					
Technology	Weaver and Lawton (2006)	 Technological advances in transport increased the ease as well as the speed of travel, thus increasing the demand for travel. 					
		 Computerised reservation systems simplify travel b providing greater flexibility and comfort. 					
Family	Bhatia (2006a)	 Demand is created for a destination when certain relatives stay there and other family members want to visit them. 					
	Weaver and Lawton (2006)	 Family size has been reduced over the years, reducing the costs, thus increasing discretionary time as well as household income. 					
Urbanisation	Weaver and Lawton (2006)	 Urban congestion and crowding increase the need of people to travel to more peaceful and open areas to get away and relax. 					
Mobility	Bhatia (2006)	 Mobility has increased due to advancements in modes of transport. 					
		 When the destination is overseas, people have a choice of travelling either by boat or plane, thus simplifying travel and increasing demand. 					

Determinants	Researcher(s)	Function/Findings
Culture	Goeldner and Ritchie (2003)	 In general, the greater the cultural difference, the bigger the resistance between two cultures can be. But, when cultures differ to a large extent, it may drive people to go and experience that cultural difference, thus stimulating demand.
Politics	Weaver and Lawton (2006)	Governments can control the ease of access of tourists into and out of a country. The more easily they gain access, the higher the demand will be.
	Narayan (2004)	 The greatest hurdle in Fiji's tourism development is the country's political instability, thus lowering demand. This had a huge impact on tourist spending.
Income	Crouch (1996); De Mello,	One of strongest influences on travel decision.
	Pack and Sinclair (2002); Garin-Munoz (2009); Lim (1997); Mulhearn, Vane and Eden (2001); Ouerfelli (2008); Pearce (1989); Saayman and Saayman (2008); Smeral and Witt (1996); Uysal (1998); Weaver and Lawton (2006)	Higher income means that people have more disposable income, leading to higher demand.
Distribution of income	Page and Connell (2009)	 In areas with few wealthy and many poor people, there will be a skewed distribution of income, meaning that fewer people will be able to travel internationally.
		• In wealthier countries, a larger proportion of people will be able to travel abroad.
Relative prices	Crouch (1996); De Mello et	Two elements that influence price competitiveness:
	al. (2002); Dwyer and Fosyth (2006); Fennell (2003);	 Cost of travel (fuel prices);
	Garin-Munoz (2009); Lim	 Cost of living at destination (goods and services)
	(1997); Smeral and Witt (1996); Uysal (1998)	(High prices can deter people from a destination, while low prices create a perception of low quality).
Price competitiveness	Saayman and Saayman (2008)	If one destination's price can be lowered because of competition, demand for that destination will rise. Destinations should therefore keep prices competitive.
Transport costs	Divisekera (2003); Duban (2000); Saayman and Saayman (2008)	Destination choice and the quantity of what is demanded (consumed) are influenced by the cost of transport as well as the cost of such services.
Marketing expenses	Dwyer, Forsyth and Dwyer (2010)	 Increased marketing spending and more effective marketing efforts increase the demand for the destination.
Exchange rate	Crouch (1995); De Mello et	Strong impact on price;
	al. (2002); Lim (1997); Narayan (2004); Page and Connell (2009); Smeral and Witt (1996); Uysal (1998)	A devalued currency at the destination creates demand for the destination. A strong currency makes the destination more expensive.

Determinants	Researcher(s)	Function/Findings
Tax	Page and Connell (2009)	The more tax a government demands, the lower the demand for that country will be because of higher prices.
Supply factors	SANParks (2010); Crouch (1996)	 For example, the impact of tourist infrastructure and superstructure, particularly the supply of hotel rooms.
		 SANParks, especially the KNP, is a great example of supply. It supplies a nature experience such as wildlife, accommodation, activities, restaurants and other facilities that create demand for the destination.
Climate	Saayman and Saayman (2008)	South Africa's mild and sunny climate impacted positively on tourist arrivals.
Travel motivation	Afwaritefe (2004); Galloway and Lopez (1999); Kim, Lee and Klenosky (2003); Kruger and Saayman (2010); Saayman and Saayman (2009); Tao, Eagles and Smith (2004); Uysal, McDonald and Martin (1994); Van der Merwe and Saayman (2008)	 Relaxation Escape from everyday environment

Source: See author(s) listed

TABLE 1 makes it clear that an array of determinants influences the tourist demand for a destination, but some of these determinants are more influential than others. Collectively, they show that the determinants income, relative prices, transport cost, exchange rates, marketing expenses, qualitative factors (including tourists' attributes that influence time available for travel such as age and holiday entitlements), travel motivation and supply factors can be regarded as the most important factors in tourist demand for a destination or country.

The most influential determinant, according to most authors, is personal income, because it relates to the availability of finances such as disposable income that will enable people to travel (Crouch, 1996; Lim, 1997; Mulhearn, Vane & Eden, 2001; Ouerfelli, 2008; Pearce, 1989; Smeral & Witt, 1996; Uysal, 1998; Weaver & Lawton, 2006). An understanding of this factor can be strengthened by referring to the simple demand and supply model. The model states that if all things are equal, the demand for a product or service that is needed will most likely increase when the supply of that service/product decreases, seeing as demand will be larger than the supply. Furthermore, an increase in prices will also likely decrease the demand for the products being consumed or the services being used (Henderson, 2009; Socialist, 2009). However, this model applies only to ordinary goods: in other words, individuals who have sufficient disposable income to be able to pay for vacations. Historically, tourism has behaved like a luxury good (or ordinary good, which means that it is not necessary for human survival): when prices of luxuries such as tourism rise, demand for this luxury will usually fall, but if income rises and prices remain constant or fall, demand will rise (Papatheodorou, Rosselló & Xiao, 2010; Song & Lin, 2010). Wilkerson (2003) and Bramwell and Lane (2003) agree that the demand for luxury goods such as travel and tourism will thus decline during periods of economic recession because people have less disposable income. This was also the case with the 2008/2009 global economic recession, signs of which began to show in 2007, with developed and developing countries' development stagnating (Fernando & Meedeniya, 2009; Song & Lin, 2010). A decline of 8% was experienced in the global demand for tourism (Fernando & Meedeniya, 2009; Tourism-review, 2009) and a 4.8% decrease in the Global Travel and Tourism Economy GDP in 2009, during which five million tourism-related jobs were lost (WTTC, 2010). The effect of the recession was also strongly felt in South Africa, which experienced a total domestic travel decrease of 8% (SAT, 2009).

National parks and other natural areas are good examples of supply determinants, because they provide a nature experience such as wildlife, accommodation, activities, restaurants and other facilities (SANParks, 2010). A study done by Akama and Kieti (2003), using a structured questionnaire distributed at four different lodges, found that the quality of the natural attractions as well as the services rendered at the Tsavo West National Park in Kenya were the most important determinants of demand for international tourists at the destinations. With this in mind, Fernando and Meedeniya (2009) and Nyaupane, Morais and Graefe (2004) point out that individuals' motives to travel are not necessarily influenced by a recession, but rather by the fact that they are not able to afford it. This notion is plausible when one takes the performance of nature-based tourism during the 2008/2009 period into account. Even with lower levels of disposable income, the demand for nature-based tourism, with the emphasis on national parks, has increased rapidly. In the United States of America (USA), for example, a strong growth in visits to national parks was experienced in 2009. Utah's national park and Glen Canyon National Recreation Area attracted an average of 300 000 and 13 000 more visitors respectively, while Arches National Park attracted 7.3% more visitors (Davidson, 2010; Seattletimes, 2010). This trend was also evident in the Kruger National Park (KNP) in South Africa.

However, the reasons for the continued growth in demand for the KNP during the recession are unknown, as previous research has also shown that people will not travel if they experience a decrease in disposable income. This could mean that demand is not produced externally, but rather by internal factors such as a need to break away or a need to spend time in a natural environment. Pan and Ryan (2007) came to the conclusion that it was important for management to understand and be aware of the underlying reasons why visitors travel, thereby implying that empirical research should be conducted to identify the attributes to be promoted so as to match tourists' motivations/demand, thus creating demand (Kozak, 2002).

3. METHOD OF RESEARCH

A questionnaire was developed on the basis of the aspects raised in **TABLE 1**. It consisted of three sections. Section A captured all the necessary demographic details of the visitors (language, gender, age, race, marital status, country of residence, province, highest qualification, and occupation). The next section (Section B) was designed to measure specific economic information (size of the group, number of visitors paid for as well as an indication as to whether visitors were visiting only for the day, or if they intended to stay overnight). The following were also measured in this section: the number of nights respondents stayed in the Park; an indication as to whether it was their first visit to this Park; the number of previous visits; the number of visits during the last three years as well as their spending dynamics at the Park. The final section (Section C) measured the respondents' travel motivations to visit the KNP by using a five-point Likert scale (1 = not at all important, 2 = less important, 3 = important, 4 =

very important, 5 = extremely important), with 21 items listed. Respondents were also asked to express their emotions towards the KNP in one word, as well as an indication of what value-added services they would prefer at the Park, despite the recession. A five-point Likert scale (1 = Completely, 2 = To a greater extent, 3 = To some extent, 4 = To a lesser extent, 5 = Not at all) was used to measure the extent to which the economic situation influenced certain aspects of the respondents' visit to the KNP. The last question determined the respondents' opinions as to why the KNP maintained their visitor numbers during the 2008/2009 global economic recession.

The two largest and most popular camps in the KNP, Skukuza and Satara (SANParks, 2010), were chosen as locations to survey the overnight visitors. Questionnaires were also distributed at day visitor areas, including Afsaal, Nkuhlu and Tshokwane. The camps, together with the three-day visitor areas, made up the sample area where all visitors who were able and willing to fill in the questionnaires, completed them. Well-trained fieldworkers who understood the aim of the questionnaire guaranteed that the maximum number of questionnaires was completed. For overnight visitors, fieldworkers distributed the questionnaires to all visitors just before sunset and collected them later in the evening. At the day visitor areas, fieldworkers waited for visitors to get seated. The fieldworkers then collected the questionnaires when the visitors had completed them. A total of 355 were completed over a five-day period (15-20 December 2009). Since the profile of Park visitors has not changed over a period of nine years (2001-2009) (see TABLE 2), the sample can be regarded as representative and sufficient. Microsoft® Excel® was used for data capturing and basic data analysis.

The analysis of data from this research consists of three stages. During the first stage of the analysis, a general profile of visitors to the KNP between 15 and 20 December 2009 was compiled using the statistical programme SPSS (SPSS Inc. 2009).

During the second stage, a principal axis factor analysis was done on the 15 behavioural aspects by means of SPSS (SPSS Inc. 2009) to explain the variance-covariance structure of a set of variables through a linear combination of these variables. In the research, Kaiser's criterion was used where factors with eigenvalues larger than one were extracted. All items with a factor loading above 0.3 were considered as contributing to the factor. The Kaiser-Meyer-Olkin measure of sampling adequacy was also used to indicate whether sufficient data had been collected to ensure compact factor structures. To determine the reliability of each scale within the factors, a reliability coefficient (Cronbach's alpha) was computed. All factors with a reliability coefficient above 0.6 were considered to have acceptable internal consistency in this study. In addition, the average inter-item correlations were calculated as another measure of reliability. According to Clark and Watson (1995), the average inter-item correlation should lie between 0.15 and 0.55.

To determine the factors that significantly influenced visitors' demand for the KNP, a distinction was made between visitors who indicated that they considered an alternative destination before they travelled to the KNP and those who did not. T-tests, two-way frequency tables and chi-square tests were employed to investigate any significant differences between visitors who considered an alternative destination and those who did not. The study utilised demographic variables (gender, home language, age, occupation and province of origin), behavioural variables (length of stay, categories completed in and expenditure dynamics) as well as motivational factors to examine whether statistically significant differences existed among the different groups. t-tests and cross-tabulations with chi-square were used to profile the groups demographically.

Although this analysis alone will provide some insight into the characteristics of visitors and

their behaviour at the KNP, such an analysis does not describe the relative strength or the significance of the relationship between visitors' desire to travel to the KNP (whether they considered an alternative destination before they travelled to the KNP or not) and its different determinants. Such an analysis requires a regression analysis. Visitors' demand for the KNP was a binary question in the questionnaire, and a logistic regression model was therefore used to analyse the determinants of demand for the KNP, since logistic regression can be used to test models to predict categorical outcomes with two or more categories (Field, 2005; Pallant, 2007). More specifically, hierarchical stepwise logistic regression was applied, since this technique is designed to find the most parsimonious set of predictors that are most effective in predicting the dependent variable (in this case demand for the KNP) (Menard & Menard, 2009).

Employing a stepwise selection procedure can provide a fast and effective means to screen a large number of variables and to fit a large number of logistic regression equations simultaneously (Hosmer & Lemeshow, 2000). Variables are added to the logistic equation one at a time and significance is assessed via the likelihood ratio chi-square test. Therefore, at any step in the procedure, the most important variable, in statistical terms, is the one that produces the greatest change in the log likelihood relative to a model not containing the variable. The order of entry of the variables can be used as a measure of relative importance (Hosmer & Lemeshow, 2000; Menard & Menard, 2009). The Hosmer-Lemeshow test was used to assess the fit of the logistic regression model and a poor fit is indicated by a significance value less than 0.05 (Pallant, 2007). The Cox and Snell R-Squared and the Nagelkerke R-Squared values also provide an indication of the amount of variation explained in the regression output (Pallant, 2007). The dependent variable is demand, indicated by whether visitors considered an alternative destination before they travelled to the KNP or not, and the independent variables include travel motives, socio-demographic variables (home language; gender; race; age; country of residence; province of residence; highest level of education; as well as occupation) and behavioural variables (size of group; number of persons paid for; day or overnight visitor; type of accommodation; number of nights in the KNP; first visit; how many visits; visits over the past three years; as well as spending dynamics in the Park).

4. RESULTS

The results will be discussed in three sections. Firstly, an overview of the profile of visitors to the KNP as well as visitors' main motives will be given. This will be followed by a discussion of the results from the factor analysis, the chi-square tests, *t*-tests and, lastly, the results of the stepwise regression analysis.

4.1 Visitor profile to the Kruger National Park

As shown in **TABLE 2**, white, South African, male, Afrikaans-speaking tourists mostly in their late forties travelled to the KNP during December 2009. They were mostly married, well-educated tourists from Gauteng, with some form of professional occupation. Their preference of travel was groups of one to four persons, with one to two people in their group being financially dependent on them. The majority of visitors were overnight visitors who stayed three to six nights in the Park, and who preferred to camp. An overwhelming majority indicated that they have visited the KNP previously, with an average of 14 visits. Day as well as overnight visitors indicated that they had visited the KNP at least once or twice in the past three years. This profile compares well with the general profile obtained by Saayman, Kruger and Fouché (2009) over the past few years,

indicating how valid this profile is (TABLE 2).

TABLE 2: Visitor profile at the KNP (2009)

Category	Profile
Home language	Afrikaans (56%); English (34%)
Gender	Male (55%); Female (45%)
Age	35-49 years of age (Average: 44)
Marital status	Married (63%)
Country of residence	RSA (84%); Netherlands (4%);
Province of residence	Gauteng (59%); Mpumalanga (14%)
Level of education	75% qualified higher than matric
Occupation	Professional (20%); Self-employed (18%); Management (15%)
Number of people in group	3-4 people (37%); 1-2 people (34%)
Overnight visitors' length of stay	2-4 nights (22%); 5-6 nights (21%)
Number of first visits	First visits (17%)
Number of previous visits	20-29 visits (21%);
Number of day visits during last 3 years	No visits (62%); 1-2 visits (13%)

Source: Statistical analysis

4.2 Motivation to visit the Kruger National Park

The factor analysis done on the main motives of visitors to the KNP identified six factors. These were: *Escape; Finances; Socialising and exploring; Family benefits; Wildlife experience;* and *Loyalty.* It was found that the most influential motives were to *Escape* from everyday environment and to have a *Wildlife experience*. The following aspects were categorised under the factor *Escape:* To relax'; 'To get away from my routine' and 'The Park is an ideal holiday destination', and under the factor *Wildlife experience,* the aspects were: 'The wide variety of wildlife and activities in the Park'; 'To photograph animals and plants'; 'It offers the Big 5' and 'the KNP offers a unique experience'. *Finances, Family benefits* and *Loyalty* were less important motives to travel to the KNP.

4.3 Results of the factor analysis: The influence of the recession on behaviour prior to and at the Kruger National Park

The factor analysis (Pattern Matrix) using an Oblimin rotation with the Kaiser Normalisation identified two factors, which were named according to behaviour before visitors entered the KNP, and (spending) behaviour at the KNP. Both factors accounted for 65.8% of the total variance. All factors had acceptable reliability coefficients ranging respectively from 0.50 (the lowest) to 0.97 (the highest). The Cronbach's alpha coefficients were above 0.9 for both factors, and this implies internal consistency. The Kaiser-Meyer-Olkin measure of sample adequacy of 0.92 indicated that patterns of correlation are relatively compact and thus yield distinct and relative factors (Field, 2005). Moreover, all items loaded onto a factor with loadings greater than 0.3 and relatively high factor loadings indicate a reasonably high correlation between the

delineated factors and their individual items. The results of the factor analysis are presented in **TABLE 3**.

TABLE 3: Factor analysis results of visitors' behaviour in relation to the KNP

	<u> </u>	1 <i>CTORS</i>
	1: Planning behaviour	2: Visiting behaviour
MEAN VALUE ± SD	3.7	3.2
STD. DEVIATION	1.14	0.36
The number of rest camps chosen to overnight at (if applicable)	0.966	
Size of the travelling party	0.890	
Type of accommodation you normally choose (if applicable)	0.837	
Choice to overnight in KNP	0.813	
Length of stay	0.699	
The time you made your booking	0.697	
The number of times you visit National Parks as a day visitor	0.637	
The hiring of equipment at day visitor areas	0.566	
The number of times you visit National Parks as an overnight visitor	0.563	
The hiring of equipment (including kitchen utensils) at camps	0.502	
Purchases of souvenirs		0.934
Visits to the Park restaurants		0.893
Purchases at Park shops		0.884
The purchasing of supplies (for example food) outside the Park		0.658
RELIABILITY COEFFICIENT	0.94	0.90
INTER-ITEM CORRELATION	0.58	0.68

Source: Statistical analysis

Both factor scores were calculated as the average of all items that contributed to the specific factors, giving a score that can be interpreted on the same Likert scale used in the survey (1 = Completely, 2 = To a greater extent, 3 = To some extent, 4 = To a lesser extent, 5 = Not at all). As indicated in **TABLE 3**, the following two factors were identified:

Factor 1: Planning behaviour

Planning behaviour (Factor 1) obtained the highest mean value of 3.7, a reliability coefficient of 0.94 and an average inter-item correlation of 0.58. This factor (Factor 1) measures the behaviour of people before visiting the KNP. Based on the mean value, it is clear that the recession impacted the planning behaviour of visitors to a lesser extent. This could be because visitors made their decision to travel to the KNP well in advance, irrespective of the influence of the recession. This result also corresponds with visitors' main motives for travelling to the KNP and emphasises that visiting the Park is a primary need.

Factor 2: Visiting behaviour

This factor (Factor 2) relates to the behaviour (spending dynamics) of visitors already in the Park. Factor 2 was thus labelled *Visiting behaviour* and obtained a mean value of 3.2, a

^{*}Note that a lower mean value indicates a greater influence, while a higher mean indicates a lesser influence.

reliability coefficient of 0.9 and an average inter-item correlation of 0.68. The lower mean value obtained for this factor clearly shows that the recession had a more significant impact on visiting behaviour at the KNP than planning behaviour before visiting.

4.4 Results of the chi-square tests to determine the differences between visitors who considered an alternative destination and those who did not

Two-way frequency tables and chi-square tests were used to indicate the possibility of any significant differences between the groups of respondents who indicated that they considered travelling to alternative destinations and those who did not. The analysis was done on the sociodemographic as well as behavioural characteristics of visitors to the KNP. According to **TABLE 4**, there are only three statistically significant differences between the two groups based on 'Language' ($\rho < .023$), 'Country of residence' ($\rho < .003$), and 'First visit' ($\rho < .003$). Pertaining to language, the visitors who considered visiting another destination before travelling to the KNP were predominantly Afrikaans speaking (47%), while those visitors who did not consider an alternative destination mainly spoke other languages, which could include English or foreign languages. Visitors who did not consider an alternative destination were from South Africa as well as from other countries. Those visitors who considered an alternative destination were more inclined to be first-time visitors than those visitors who did not consider an alternative destination and who tend to be repeat visitors.

There were no other statistically significant differences based on other socio-demographic and behavioural characteristics; both visitor groups are white, married, travel mainly from Gauteng, have medium-income occupations and are overnight visitors in the KNP. With regard to visitors' spending at the Park during the recession compared to previous years, both visitor groups indicated that they spent more on necessities such as entrance and conservation fees, accommodation, food and drinks and transport costs to the Park. Both groups also indicated that they spent less on luxuries such as activities and souvenirs.

TABLE 4: Results of the chi-square tests

CHARACTERISTICS	Considered alternative destination YES	Considered alternative destination NO	CHI SQUARE VALUE	DF	SIG. LEVEL	PHI VALUE
LANGUAGE			5.182	1	0.023*	0.112
Afrikaans	47%	31%				
Other	53%	69%				
GENDER			0.671	1	0.431	-0.044
Male	50%	56%				
Female	50%	44%				
RACE			2.466	1	0.116	-0.085
White	90%	95%				
Other	10%	5%				
MARITAL STATUS			2.746	1	0.098	-0.089

CHARACTERISTICS	Considered alternative destination YES	Considered alternative destination NO	CHI SQUARE VALUE	DF	SIG. LEVEL	PHI VALUE	
Married	54%	66%					
Not-married	46%	34%					
COUNTRY	.070	0.70	8.957	1	0.003*	-0.161	
South Africa	71%	87%	01, 01	-	0.000	0.101	
Other	29%	13%					
PROVINCES	27,70	1070					
		Yes=58%;					
Gauteng	Yes=67%;No=33%	No=42%	1.224	1	0.269	0.064	
	Yes=7%;	Yes=8%;					
Mpumalanga	No=93%	No=92%	0.078	1	0.779	-0.016	
QUALIFICATION	7070	7270	0.487	1	0.485	0.038	
Higher level of education	78%	74%		_			
Matric	22%	26%					
OCCUPATION•	22,0	2070					
	Yes=21;	Yes=18%;		1	0.493		
Low income	No=79%	No=82%	0.469			0.037	
Medium income	Yes=75%;	Yes=70%;					
	No=25%	No=30%	0.631	1	0.427	0.042	
	Yes=54%;	Yes=53%;					
High income	No=46	No=47%	0.036	1	0.849	0.01	
DAY OR NIGHT			0.126	1	0.723	0.019	
Overnight	92%	90%					
Other	9%	10%					
	Yes=30%;	Yes=14%;		1	0.003*		
FIRST VISIT	No=70%	No=86%	8.844			0.159	
SPENDING							
	More=57%;	More =54%;					
Entrance and conservation fees	Less/No	Less/No	0.155	1	0.694	0.023	
1003	change=43%	change =46%					
	More=67%;	More =69%;					
Accommodation	Less/No change =33%	Less/No change =31%	0.09	1	0.764	-0.018	
	-33% More=59%;	-31 % More =56%;					
Restaurants		More = 56%; Less/No change	0.096	1	0.757	0.019	
	=41%	=44%					
	More=63%;	More =67%;					
Food/drinks	Less/No change =37%	•	0.195	1	0.659	-0.026	
	=37% More=75%;	=33% Mara =70%					
Transport	,	More =70%; Less/No change	0.421	1	0.517	0.038	
1	=25%	=30%					

CHARACTERISTICS	Considered alternative destination	Considered alternative destination NO	CHI SQUARE VALUE	DF	SIG. LEVEL	PHI VALUE
Activities	More=43%; Less/No change =57%	More = 36%; Less/No change = 64%	0.781	1	0.377	0.055
Souvenirs	More=32%; Less/No change =68%	More =40%; Less/No change =60%	1.149	1	0.284	-0.066

Source: Statistical analysis

Statistically significant difference: p < .05

Note: Low income: Housewife, Pensioner, Student, Unemployed

Medium income: Technical staff, Sales staff, Farmer, Mining, Administrative, Civil service

High income: Professional, Management, Self-Employed

4.5 Results from the independent t-test

Independent t-tests were also carried out to determine whether there are significant differences between the visitors who considered an alternative destination before they travelled to the KNP and those who did not, based on travel motives and behavioural characteristics. As shown in **TABLE 5**, there are statistically significant differences between visitors who considered an alternative destination and those who did not, based on the travel motives $\mathcal{E}scape$ (p < .001), Finances (p < .036) and Family benefits (p < .046) as well as Loyalty (p < .001).

TABLE 5: t-test results of differences between visitors who considered an alternative destination and those who did not based on travel motivations and travel

Variables		Visitors considered alternative destinations = YES		Visitors considered alternative destinations = NO			t- value	р
	Mean	Std.Dev	N	Mean	Std.Dev	N	varue	
Travel motives								
Escape	3.65	1.05	56	4.09	0.95	281	-3.67	0.001*
Finances	2.66	0.85	58	2.95	0.97	278	-2.11	0.036*
Socialising and exploration	2.71	1.19	56	2.97	1.27	274	-1.36	0.175
Family benefits	2.99	1.10	56	3.31	1.11	280	-2.00	0.046*
Wildlife experience	3.89	0.94	57	3.96	0.86	284	-0.59	0.556
Loyalty	2.44	1.09	57	2.97	1.12	280	-3.27	0.001*
Travel behaviour								
Planning behaviour	3.66	1.10	55	3.71	1.15	279	-0.36	0.720
Visiting behaviour	3.23	1.38	55	3.14	1.36	275	0.46	0.645

Source: Statistical analysis

^{*}Statistically significant difference: ρ < .05

Visitors who did not consider an alternative destination were motivated more by *Escape, Finances, Family benefits* and *Loyalty* than those visitors who did consider an alternative destination before travelling to the KNP. Even though there are no statistically significant differences between the two groups based on the other motives and visiting behaviour, it seems that visitors who did not consider an alternative destination are more motivated by all other motives than the other group. Visitors who did not consider an alternative destination obtained higher mean values for all six motivational factors than visitors who considered an alternative destination. Both visitor groups' planning behaviour was influenced by the economic recession to a lesser extent than their visiting behaviour, seeing as visiting behaviour obtained a lower mean value, indicating that the recession influenced it to some extent, while planning behaviour was influenced to a lesser extent.

4.6 Results of the stepwise logistic regression analysis

Hierarchical stepwise logistic regression was performed to assess the impact of a number of factors on the likelihood that visitors' demand for the KNP changed during the economic recession. The model contained the independent variables indicated in **TABLE 6** that were dummy coded as 1 and 0.

TABLE 6: Questions used and their descriptions

Category	Question description	Coding	Variable
Socio-	Home language	Afrikaans = 1; Other = 0	LANGUAGE
demographics	Gender	Male = 1; Female = 0	GENDER
	Age	Open question	AGE
	Race	White = 1; Other = 0	RACE
	Marital status	Married = 1; Other = 0	MARITAL STATUS
	Country of residence	RSA = 1; Other = 0	COUNTRY
	Gauteng province	Gauteng = 1; Other = 0	GAUTENG
	Mpumalanga province	Mpumalanga = 1; Other = 0	MPUMALANGA
	Level of education	High level = 1; Other = 0	EDUCATION
	High-income occupation	High income = 1; Other= 0	HIGH INCOME
	Medium-income occupation	Medium income = 1; Other = 0	MEDIUM INCOME
	Low-income occupation	Low income = 1; Other = 0	LOW INCOME
Behavioural	Group size	Open question	GROUP SIZE
	Number of people paid for	Open question	PEOPLE PAID FOR
	Day/Overnight visitor	Overnight = 1; Other = 0	OVERNIGHT
	Number of nights in KNP	Open question	NIGHTS
	First-time visit	Yes = 1; No = 0	FIRST TIME
	Number of previous visits	Open question	TIMES

Category	Question description	Coding	Variable
Spending	Entrance and conservation fees	More = 1; Less/No change = 0	ENTRANCE
compared to	Accommodation	More = 1; Less/No change = 0	ACCOMMODATION
previous years	Restaurants	More = 1; Less/No change = 0	RESTAURANTS
	Food and drinks	More = 1; Less/No change = 0	FOOD AND DRINKS
	Transport	More = 1; Less/No change = 0	TRANSPORT
	Activities (game drives)	More = 1; Less/No change = 0	ACTIVITIES
	Souvenirs and jewellery	More = 1; Less/No change = 0	SOUVENIRS
Travel motives	Escape	5-point Likert scale	ESCAPE
	Finances	5-point Likert scale	FINANCES
	Socialising and exploration	5-point Likert scale	SOCIALISING
	Family benefits	5-point Likert scale	FAMILY BENEFITS
	Wildlife experience	5-point Likert scale	WILDLIFE
	Loyalty	5-point Likert scale	LOYALTY
Behaviour prior	Planning behaviour	5-point Likert scale	PLANNING
to and at KNP	Visiting behaviour	5-point Likert scale	VISIT

Source: Statistical analysis

Based on the results of the t-tests, two-way frequency tables and the chi-square tests, the six travel motives and spending behaviour variables were included in the first block of the analysis and the model was statistically significant, χ^2 (1, N-136) = 7.90, ρ < .001, indicating that the model was able to distinguish between factors that influence demand for the Park and those that do not. The model explained between 4.8% (Cox and Snell R-squared) and 8.6% (Nagelkerke R-squared) of the variance (which indicates a low significance), and correctly classified 86.2% of the cases.

As shown in **TABLE 7**, the only significant variables included in the model were *Escape* (p < .004) and *Souvenirs* (p < .018). In the second block, the socio-demographic variables together with behavioural and spending determinants were included ($\chi^2 = 6.72$, p < .010). Gauteng and Mpumalanga were the only significant variables included in the model. This model then explained between 14.9% (Cox and Snell R-squared) and 26.5% (Nagelkerke R-squared) of the variance in demand, and correctly classified 87.4% of the cases.

TABLE 7 indicates that *Escape*, the provinces *Gauteng* and *Mpumalanga* and *Souvenirs* had the greatest influence on visitors' desire to travel to the KNP. *Escape* obtained a negative Beta value of -1.138 (odds ratio = 0.321), indicating that visitors who are motivated by *Escape* have a three times higher chance of visiting the KNP without considering an alternative destination. The provinces *Gauteng* and *Mpumalanga*, on the other hand, obtained positive Beta values of 1.91 and 3.40 (odds ratios of 6.77 and 30.03) respectively, indicating that visitors from these provinces are more likely to consider alternative destinations before deciding to visit the KNP.

The results also indicate that visitors to the KNP who considered alternative destinations are 10 times less likely to spend on souvenirs (odds ratio =0.099) than those who did not consider an alternative destination. The strongest predictor of demand is the province Mpumalanga, recording an odds ratio of 30.03. This shows that visitors from this province are 30 times more likely to consider an alternative destination before travelling to the KNP.

TABLE 7: Results from hierarchical stepwise logistic regression: Influence on demand for KNP

		•	6.6			df Sig.	0dds	95% C.I. fo	or EXP(B)
		В	В S.E.	Wald	đf		Ratio Exp(B)	Lower	Upper
Block 1	ESCAPE	826	.283	8.512	1	.004	.438	.251	.762
	SOUVENIRS	-1.586	.673	5.550	1	.018	.205	.055	.766
	Constant	1.917	1.136	2.845	1	.092	6.798		
Block 2	ESCAPE	-1.138	.334	11.577	1	.001	.321	.166	.617
	GAUTENG	1.912	.721	7.036	1	.008	6.765	1.647	27.782
	MPUMALANGA	3.402	1.587	4.597	l	.032	30.029	1.339	673.388
	SOUVENIRS	-2.317	.880	6.937	1	.008	.099	.018	.553
	Constant	1.737	1.286	1.822	1	.177	5.677		

Source: Statistical analysis.

The odds ratio for the province Gauteng was also more than one (6.77), indicating that visitors originating from this province are 6.77 times more likely to consider an alternative destination before making their final decision to travel to the KNP.

4. FINDINGS AND IMPLICATIONS

The aim of the research was to identify the determinants that influenced the desire of visitors to travel to the KNP during the 2008/2009 recession. *t*-tests, two-way frequency tables and chi-square tests were conducted to determine the significant differences between visitors who considered alternative destinations and those who did not. The only significant differences included: *Language; Country, First visit, Escape, Finances, Family benefits* and *Loyalty.* Thereafter, a hierarchical stepwise logistic regression analysis was done to identify the variables that were the most influential in creating visitor demand for the KNP. Based on the results, the following determinants were significant: the travel motive *Escape*, the provinces *Gauteng* and *Mpumalanga*, which are socio-demographic variables, as well as the price of *Souvenirs*, which is a behavioural characteristic. Based on these results, the following findings were made.

Firstly, only a few variables were identified (these were *Escape, Gauteng, Mpumalanga* and *souvenirs*) in the regression analysis as having an influence on demand. One reason for this could be that visitors are more homogeneous as well as loyal and visit the Park annually. The results therefore contradict the notion by Craggs and Schofield (2009) and Kastenholz (2005) that various socio-demographic, behavioural and motivational variables influence travel behaviour, seeing as only a few variables played a significant role. Again, the reason for this could be the homogeneous factor, which marketers and researchers need to take into consideration when such analyses are done.

Secondly, with regard to the origin of markets, the results support the notion of Bhatia (2006a), Crouch (1996), Dwyer and Forsyth (2006), Fennell (2003), Havengaard and Deadren (1998), Jang and Wu (2006), Lim (1997), Lohman (2004), Mulhearn et al. (2001), Narayan (2004), Ouerfelli, (2008), Page and Connell (2009), Pearce (1989), Smeral and Witt (1996), Uysal (1998) and

Weaver and Lawton (2006) that *Income* is among the most important determinants of travel. In South Africa, residents living in *Gauteng* earn the highest per capita income, enabling them to afford to travel (411km from Johannesburg to the nearest gate, Numbi). Visitors from *Mpumalanga*, on the other hand, are in close proximity or adjacent to the KNP (Mpumalanga surrounds the southern part of the Park); thus travelling costs are lower. This confirms that location plays an important role in times of recession. These results therefore support the findings of Crouch (1996), De Mello et al. (2002), Divisekera (2003), Duban (2000), Dwyer and Fosyth (2006), Fennell (2003), Garin-Munoz (2009), Lim (1997), Saayman and Saayman (2008), Smeral and Witt (1996), and Uysal (1998) that relative prices and transport costs, distribution of income and mobility play a role in visitors' desire to travel to a destination.

Thirdly, the results revealed that visitors from *Gauteng* Province are six times more likely to choose another destination over the KNP, while people from *Mpumalanga* Province have an up to 30 times greater chance of choosing an alternative destination. This could be because the visitors from *Gauteng* have more disposable income to travel to alternative destinations, while *Mpumalanga* has an extended diversity of other tourism destinations, which creates competition among these tourism destinations in the province. This implies that price competitiveness plays a role in visitors' desire to travel. Saayman and Saayman (2008) confirm this in their study on determinants of inbound tourism in South Africa.

Fourthly, the results showed that the motive *Escape* is a strong factor influencing the desire of visitors to travel to the KNP, which is no different to many previous studies that obtained similar results, such as Uysal et al. (1994), Saayman and Saayman (2009), Kruger and Saayman (2010), Van der Merwe and Saayman (2008), Scholtz et al. (2010) and Kim et al. (2003). Results also suggest that visiting the KNP is seen as a primary need or part of these visitors' lifestyle instead of being a luxury good, a notion which is strongly supported by Scholtz et al. (2010).

Lastly, visitors have adapted their spending behaviour at the Park, and this is especially true for *Souvenirs*. This is also well illustrated by the factor analysis, which showed that visitors who planned to visit the Park (*Planning behaviour*) were, to a lesser extent, affected by the recession, while visitors' behaviour at the destination (*Visiting behaviour*) was influenced to some extent. This implies that visitors' spending behaviour has changed to compensate for the lower amounts of disposable income experienced during the recession. This emphasises that, even though visitors have restricted finances, they will still visit the KNP, since visitors scaled down on normal expenditure at the Park, such as buying *Souvenirs* to be able to afford travelling to the Park.

From these findings, the following implications can be drawn: managers at the KNP should focus their marketing on the provinces *Gauteng* and *Mpumalanga* in times of a recession. From this study, it becomes clear that tourists would travel closer to home and adapt their spending behaviour. The fact is that they will still travel. Therefore, marketing should focus on markets closer to the product, especially during a recession. It would also be wise to offer promotions and focus on an escape from the everyday bustle where one could enjoy a nature experience. Park management could also promote the fact that the KNP offers accommodation for all markets. This implies that the greater the variety of products and services on offer, the greater the chances of surviving a recession. From a methodological point of view, it seems that the more homogeneous the market, the fewer the determinants, and this is an aspect that researchers and marketers should take note of.

5. CONCLUSION

Based on the results of this study, it is clear that the recession did not have a significant influence on the determinants influencing demand for visitors to travel to the KNP. However, it did, to a certain extent, influence the spending behaviour of visitors at the Park. Visitors to the KNP tended to scale down on normal daily goods, such as buying souvenirs, staying in less expensive accommodation or taking part in fewer activities at the Park. Another reason for the recession not having a significant impact could be the KNP's variety of accommodation facilities and services. It is possible that visitors choose instead to use lower cost (budget) accommodation, such as staying in a tent rather than in a chalet. The results furthermore indicated that visitors regarded travelling to the Park as a primary need instead of a luxury, thus also showing the irrelevance of the economic constraints (economic recession 2008/2009) and also making nature tourism a Giffen good (Runde, Faulkner, Taylor & Aidt, 2007). The increase in visitor numbers to the KNP during the recession also supports the findings of Eagles (2007), who stated that visits to nature areas such as national parks would continue to increase as more people are turning to nature tourism.

Based on this, the KNP should continue to do marketing research focusing on the variety of markets that visit the Park to retain current loyal visitors and identify potential new markets. As regards the latter, the KNP should continue with extensive marketing to ensure that it stays in the minds of current and potential visitors when they are considering taking a holiday. Marketing should focus on retaining the existing loyal market as well as attracting new markets by means of new product developments and promotions. From a marketing and managerial perspective, the results of this research revealed the following determinants that influence the demand of visitors to the KNP. These should be taken into consideration to gain a competitive advantage during times of economic prosperity and also recession:

- The proximity of the KNP to people living in Mpumalanga and Gauteng.
- A relaxing environment encapsulated by nature and a place where one can escape with family or friends.
- The unique attributes of the KNP (fauna, flora, Big 5, activities, atmosphere, location, accommodation, facilities etc.)
- The diversity within the Park (different types of accommodation and their prices, picnic areas, fauna, flora etc.)
- The development of packages to suit all economic groups.

This was the first time that the influence of determinants of tourism demand for the KNP during an economic recession was determined. The results provide valuable insights pertaining to the determinants that created visitor demand for the KNP during this period. The results show that visitors' desire to visit the KNP was not greatly influenced by the recession, because they simply changed their behaviour (spending behaviour, for instance) at the Park in order to afford visits. Visitors also did not travel too far to visit the KNP, implying lower travel costs. Visitors from Gauteng could still visit because they have more disposable income, and especially because the Park serves as the perfect getaway from the bustling city lifestyle. If KNP management focuses on these things, it will ensure the sustainability of the KNP, because this information now allows for well-planned, thorough marketing and management of the Park. With a homogeneous market, as in the case of the KNP, the number of determinants identified influencing demand for visiting the Park are fewer than those found in other studies on heterogeneous markets. This study therefore makes a valuable methodological contribution to analysing the demand for

homogeneous and heterogeneous markets. The results of this study are of significance to other national parks from around the world, given that the study can be modified to apply to those parks and that it provides a framework for the development of strategic management in order to ready other national parks for future periods of recession.

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