

Research Article

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Tourists' perceived value of wildlife tourism product at Lake Nakuru National Park, Kenya

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Abstract: Although literature has documented many destination attributes that determine attractiveness of tourism destination, the magnitude and strength of each attribute has not been explored, especially in relation to a single wildlife tourism product. This study provides an insight into the level of tourists' perceived value on wildlife resource attributes at Lake Nakuru National Park in Kenya, with a further comparison between the international and domestic tourists. The study adopted a cross-sectional survey and collected primary data using self-administered structured questionnaires. A total of 402 respondents duly completed the questionnaires, which were disseminated through simple random sampling. Data was analysed descriptively and through independent sample T-test. The results showed that unique wildlife attractions were most valued by tourists ($M = 2.26$, $SD = 0.99$), followed by the variety of attractions ($M = 2.53$, $SD = 1.08$) and their abundance ($M = 2.59$, $SD = 1.19$) respectively. Majority of international tourists highly valued the attributes [$M = 2.30$, $SD = 0.88$; $t(400) = 4.18$, $p < 0.001$] as compared to the domestic tourists ($M = 2.67$, $SD = 0.88$), but with a small magnitude ($\eta = 0.04$). The study provides an insight that tourists value the park because of its uniqueness due to a variety of wildlife attractions. As park ecological challenges persist, park managers may re-brand the park by creating more emphasis on other key wildlife products like rhinos in order to maintain visitor value and satisfaction in the future.

1 Introduction

Globally, protected areas are regarded as vital places for the conservation of natural environments and wildlife species. Among the various types of protected areas, IUCN category II protected areas (e.g., national parks) have the aim to provide access for tourism and recreational activities to visitors or tourists. Tourism promotion creates the much-needed societal awareness and increases support for biodiversity conservation (Viveiros de Castro, Souza & Thapa, 2015). Touristic activities provided by national parks attract visitors, and in return, public use reinforces the support for creation and maintenance of such areas (Eagles & McCool, 2002; Weiler, Moore & Moyle, 2013). Manning (1999) further acknowledges that visitor demand, associated park choices, relationship of park features and quality also influence visitation.

Interactions between wildlife and visitors yield wildlife tourism experiences, which provide opportunities to view and interact with endangered, threatened or rare wild animals worldwide (Cousins, 2007; Higham & Shelton, 2011; Orams, 2002; Woods & Moscardo, 2003). In Kenya, for example, wildlife experience forms a major part of tourism in the country. These experiences normally occur in natural habitats within protected areas like national parks and reserves or on dispersal areas like communal land. Conceptually, Reynolds and Braithwaite (2001) came up with a framework for wildlife tourism with six intrinsic quality factors of wildlife tourism experience. These quality factors include: duration, intensity, uniqueness, authenticity species popularity and species status. Orams (2002) also analysed what allured visitors to wildlife tourism experiences and concluded that one of the important reasons was an increase in the number of opportunities to interact with nature.

On the other hand, Higginbottom's model (2004) focuses on the components of wildlife tourism experi-

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ences in relation to wildlife interactions. Tourist-wildlife encounters and wildlife tourism product were at the core of the model with three factors including wildlife and habitats, tourists and operators/business and settings influencing the core model components. The outcomes resulting from the consumption of core components were depicted as effects on the natural environment, tourism operators, tourists, host communities and economic yields. Both Reynolds and Braithwaite (2001) and Higginbottom (2004) models provide solid conceptual and theoretical platform for future research on wildlife tourism experiences.

There is, however, a need for more empirical research on the value attached to wildlife resource attributes as a precursor for tourists-wildlife experiences. Specifically, establishing insights on the perceived value tourists attach to wildlife attributes while visiting protected areas. Previous studies have followed the classical view of perceived value as a trade-off between cost and benefit or between price and quality (Cravens *et al.*, 1988; Monroe, 1990; Sheth *et al.*, 1991; Sweeney & Soutar, 2001; Zeithaml, 1988). Value has also been defined as ‘a customer’s perceived preference for and evaluation of those product attributes, attribute performances, or consequences arising from use that facilitate (or block) achieving customer’s goals and purposes in the use situations’ (Woodruff, 1997: 142). As research advances, methods for measuring and modelling customers’ perceived value are constantly improving (See Huber, Hermann & Morgan, 2001; Moutinho, 2011; Petrick, 2002; Sánchez Callarisa, Rodríguez, & Moliner, 2006).

In the field of wildlife tourism research, tourists’ perceived value has not been explored like other sectors such as hospitality (Al-Sabbahy, Ekinici & Riley, 2004; Kashyap & Bojanic, 2000), dining experiences (Oh, 2000), heritage tourism (Chen & Chen, 2010), adventure tourism (Williams & Soutar, 2009), cruise experiences (Dumand & Mattila 2005; Petrick 2004), golf tourism (Hutchinson, Lai & Wang, 2009; Petrick & Backman, 2001) and vacation purchase situations (Sanchez *et al.*, 2006). Therefore, this study advances a measuring scale for the perceived value of wildlife tourism product from a supply perspective by applying the wildlife species attributes of uniqueness, variety and abundance (may be referred to as UVA scale) as possible antecedents. This perspective has been supported by Gallarza and Saura (2006), Sweeney, Soutar and Johnson (1999) and Sweeney and Soutar (2001), who suggested that future research should examine other potential factors that might influence the perceived value by measuring multiple components of the perceived value. Moreover, the analysis of perceived value placed on wildlife resource attributes could also provide suitable guide-

lines for protected area management and in marketing and promotional choices.

2 Literature review

2.1 Concept of wildlife-based tourism

Modern human relationships with nature and animal kingdom are believed to be highly complex. Throughout history, man has coexisted with animal populations and has exhibited a number of different relationships with them (Curtin, 2010). This relationship could be in the form of including animals in man’s social groups either as domestic pets, spiritual and cultural matters or a source of income and food. In doing so, there emerged rich indigenous and scientific knowledge about animals. Moreover, because of constant serious socio-economic and environmental challenges facing wildlife, the conservation initiatives emerged to protect wildlife. In the process, promotional initiatives to experience wildlife also emerged leading to the wildlife-based tourism or simply the wildlife tourism concept.

Wildlife has been considered as ‘any living non-human, undomesticated organism in the kingdom *Animalia*’ (Moulton & Sanderson, 1999:111). Shackley (1996) also notes that wildlife technically encompasses both the faunal and floral components of natural environment; more often referred to just as fauna. In tourism literature, wildlife tourism, as a sub-set of nature-based tourism can then be defined as ‘tourism based on interactions with wildlife, whether in its natural environment or in captivity’ (Burns & Sofield, 2001:2). It also contains all the traditional elements of tourism (such as tourists, hosts and resources) with its distinguishing feature being focused on wildlife as tourist attracting resource (Shackley, 1996).

In Kenya, for example, wildlife tourism is mainly faunal (as adopted in this study), as defined by Reynolds and Braithwaite (2001) as a form of nature-based tourism that is centred on the interaction of tourists with wild animals. Interactions occur in their natural environments either within protected areas or in wildlife dispersal areas and play a central role or a marginal role in tourist experience (Reynolds & Braithwaite, 2001). In terms of central role, tourists visit wildlife-based destinations mainly for faunal experience, while other experiences become auxiliary. For instance, an experience of wildebeest migration within Mara-Serengeti Trans-Frontier ecosystem by visitors could be regarded as a central role for many visitors to Maasai Mara National Reserve. Under the marginal role,

visitors combine faunal viewing with other activities like experiencing host community culture.

Shackley (1996)'s emphasis on host community as a part of wildlife tourism cannot be underscored. Host communities living adjacent to protected areas or with wildlife in their natural habitat also play a key role in wildlife survival, visitor interaction with wildlife and sometimes deriving their livelihood from wildlife resources. For example, in the Southern African countries, where sport hunting is practiced as a form of wildlife tourism product, host communities play an integral role in visitor experience. Human-wildlife conflicts emanating from many national parks and reserves like in Kenya directly or indirectly affect the visitor-wildlife experiences.

2.2 Wildlife as a tourism product for destination attractiveness

The demand for tourism activities based on interaction with wildlife has increased rapidly in recent years, attracting millions of people worldwide (Higginbottom, Rann, Moscardo, Davis, & Muloin, 2001; Moscardo, 2008). It is believed that in Kenya alone, 70% of international tourists must have had an element of wildlife experience during their visit. This growth, in close relationship with wild animals, was also depicted by Orams (2002). Mvula (2000) also acknowledges that one particular resource that is attracting an increasing number of visitors to developing world is that of the wildlife. Unlike developed world, developing countries like Africa are still rich in wildlife resources within their natural habitat as compared to wildlife in captivity like in zoos mainly found in the developed world.

The scope of wildlife product also differs from one destination to another in terms of their size and scale. Beeton (2004) explains that this scope varies considerably from large zoos and aquaria, which are normally orientated towards mass tourism, to small privately-run tours that appeal to specialized wildlife tourists. Contrary to Beeton's (2004) argument, large wildlife tourism activities in developing countries are not necessarily oriented towards mass tourism. There exists an agreement among conservationists and tourism scholars and practitioners that some wildlife tourism experiences are regarded as ecotourism. The activities have yielded conservation on wildlife, environment and socio-economic benefits to host communities. On the other hand, research has shown that socio-economic benefits of ecotourism practices have not been granted much priority as environmental conser-

vation in some wildlife destinations (Ariya & Momanyi, 2015).

Besides scope, wildlife interactions can be in many forms, including but not limited to wildlife observation, feeding, touching, photographing or just experiencing wild animals in a wide variety of settings worldwide (Beeton, 2004). In a broader perspective, Raynolds and Braithwaite (2001) explain that a wide range of wildlife tourism products exist as nature-based tourism with wildlife component, locations with good wildlife opportunities, artificial attractions based on wildlife, specialist animal watching, thrill-offering tours and hunting/fishing tours. These categories illustrate a wide and diverse range of interactions which are available under the banner of wildlife tourism as a tourist product.

Different studies depict different attributes that necessitate tourists to visit wildlife tourism destinations and encounter different experiences. This has created a gap in the universal standard attributes for measuring wildlife resource attractiveness, especially in the protected areas. Further, there are limited (if any) documented attributes, specifically for the protected areas. In Kenya, for example, an empirical study on tourists' perceived value of wildlife resource attributes within a national park has never been undertaken. A study by Akama and Kieti (2003) about measuring tourist satisfaction with Kenya's wildlife safari in Tsavo West National Park only explored the exogenous factors responsible for the decline and poor performance of Kenya's tourism industry. The study also failed to address the perceived value of wildlife resource attributes within the park.

2.3 The concept of perceived value with respect to wildlife tourism destination

The concept of perceived value has been recognized as one of the most vital ingredients for gaining a competitive edge (Parasuraman, 1997; Tussyadiah, 2014) and valuable indicator of future behavioural intentions by customers (Parasuraman & Grewal, 2000). Many researchers view the perceived value concept as a general evaluation of the service net value or utility of a product, based on what the customers receive and what they give in return in terms of cost (Hellier, Geursen, Carr, & Rickard, 2003; Woodruff, 1997; Zeithaml, 1988). Perceived value is most commonly used as a uni-dimensional measure (Gale, 1994). However, some researchers argue that this unidimensional measure lacks validity (Woodruff & Gardial, 1996) and it assumes that consumers have a shared meaning of value (Petrick, 2004).

Past researches have developed a multi-dimensional scale of perceived value in a product setting (Sweeney & Soutar, 2001) as well as in a service setting (Petrick, 2002). According to Sweeney and Soutar (2001), perceived value of a product constitutes four dimensions: emotional, social, quality/performance and price/value for money. In addition, Petrick (2002) found that perceived value of service comprises five dimensions: quality, emotional response, monetary price, behavioural price and reputation.

From tourism's perspective, perceived value is regarded as personal evaluation of travel products in terms of quality, price, lived emotions and social factors (Chiu, Lee & Chen, 2014). Tourists evaluate their experiences in terms of quality services, perception of the surrounding nature, tourists' resources among others (Prebensen, Woo, Chen & Uysal, 2013). However, there is hardly a consensus among researchers on the definition of perceived value, especially in the context of tourism (Holbrook, 1994; Woodruff, 1997; Zeithaml, 1988). While most researchers agree that perceived value is a multi-dimensional rather than a uni-dimensional construct; they propose different dimensions or terminology of perceived value. For instance, tourism businesses, as a result of inadequate research, do not understand the most important value as perceived by tourists (Holbrook, 1999).

Some studies have explored the effects of perceived value on the aspects related to tourists' behaviour like satisfaction and behavioural intentions (Bajs, 2015), destination loyalty (Gallarza & Gil, 2006) and positive influence of perceived value on satisfaction (Chui *et al.*, 2014; Kim, Woo & Uysal, 2015). In this study, we believe that the park management could benefit from the multidimensional measure of perceived value from the supply perspective in terms of wildlife uniqueness, their variety and abundance as antecedents of wildlife tourism product. We operationalized perceived value as wildlife tourism attributes that most meet the needs or goals of tourists while visiting a national park like Lake Nakuru National Park (LNNP) and compared the relative importance of each attribute to tourists. Identifying wildlife tourism attributes that are most valuable to tourists but perform well or poor could give specific direction on how to improve the value of the park.

3 Study area and methodology

This study was conducted at Lake Nakuru National Park (LNNP), Kenya and was undertaken between September and June 2017. The park lies approximately between latitudes 0°18' and 0°29' South and longitudes 36°03' and 36°09' East in the Rift Valley of Kenya (Dharani, *et al.*, 2006). It covers an area of about 188 km². The altitude ranges from approximately 1760–2080 m a.s.l. The park is located about 150 km from Nairobi along the Trans African Highway A104. It is only 3 km south of Nakuru Town (Dharani *et al.*, 2006; GoK, 2010).

The history of the park dates back to the period when the southern end of lake was first designated a bird sanctuary under the management of the Kenya Royal National Parks in 1961 (GoK, 2010). The whole area of the lake and the surrounding shore was officially gazetted as a National Park in 1968. In 1987, LNNP was established as Kenya's first rhinoceros sanctuary (Dharani *et al.*, 2006). Later on, on 5th June 1990, the park was designated as Kenya's first Ramsar Site or a Wetland of International Importance. It has also been designated as an Important Bird Area (IBAs are sites of international significance for the conservation of birds) by Bird Life International.

The park has made a significant ecological and management contribution to the fragile ecosystem and to the national economy through tourism because of its unique biodiversity (Dharani *et al.*, 2006). The park is also known due to millions of Greater and Lesser flamingos and other bird species that are a part of the fauna of this park, representing one of the greatest ornithological spectacles on Earth (GoK, 2010). In addition, the park is a home to the globally-threatened White rhino (*Ceratotherium simum*) and Black rhino (*Diceros bicornis*) among other wildlife species.

This study adopted a cross-sectional survey design with the target population being both domestic and international tourists visiting the park. During the study, a total of four hundred and two (402) respondents completed the self-administered questionnaires through simple random sampling technique. All the tourists visiting the park through three park main gates (Nderit, Lanet and Main gates) at the time of the study and willing to fill in questionnaires were simple randomly sampled for the questionnaire dissemination. Data was analysed through descriptive and inferential statistics and presented in the form of graphs and tables.

4 Results and discussion

4.1 Socio-demographic attributes of the tourists

A total of 402 respondents returned duly-filled questionnaires and formed the set of respondents of the study. Cronbach Alpha test was used to check for reliability of the questionnaire instrument and the calculated Cronbach Alpha Internal Consistency Coefficient value was 0.921. Thus, the questionnaire instrument was considered reliable for use in the study (Cohen et al., 2007; Oshoff, 2006; Connely, 2008).

In terms of gender, majority of the respondents were male (56.2%) followed by female (43.8%). In terms of age, 22.9% of the respondents were in the group 24–29 years, followed by 36–42 years (17.9%), 30–35 years (16.9%), 18–23 years (15.4%), above 54 years (13.9%), 43–48 years (8%), 49–54 years (4.5%), and only 0.5% did not indicate their age. Regarding the level of education, 28.9% had attained college level of education, followed by University higher degree (26.8%), then University degree (25.9%), 13.9% attained high school and only 4.5% had pre-secondary education.

Occupation wise, the employed (60.7%) represented the majority of respondents, followed by self-employed (19.4%), students (9.5%), retired (5.5%), unemployed (2.5%) and the rest (2.5%) did not specify their occupation. Some respondents (36.3%) earned a yearly income of less than US\$ 20,000, followed by those with yearly earning between US\$ 20,001–40,000 (22.4%), then US\$ 80,001 and above (11.4%), between US\$ 40,001–60,000 (10%), 6.5% earned between US\$ 60,001–80,000, and the rest (13.4%) never specified their income level. In terms of nationality, majority of the respondents (55.2%) were non-residents followed by citizens (43.3%) and the rest (1.5%) never specified their nationality. Based on the continental categories of the non-residents, majority were from Europe (18.9%), followed by America (17.4%), Africa (8.5%), Australia and New Zealand (7%), Asia (3.5%) and the rest (1.4%) never specified their nationality as shown in Figure 1.

Based on the relationship between the respondents' source markets and their yearly income level, majority of the respondents with income level of less than US\$ 20,000, US\$ 20,001–40,000 and US\$ 40,001–60,000 were from Kenya at percentage frequency level of 58.9%, 47.7% and 35% respectively. Those with income level between US\$ 60,001–80,000 were from Europe (53.8%), US\$ 80,001 and above were both from Europe and America at 39.10%

respectively. Moreover, majority of the respondents who did not specify their income level were also from Kenya (51.9%) followed by the respondents from America (22.2%). There was a significance difference between the respondents' source markets and yearly income level ($\chi^2 = 158.380$, $df = 30$, $p < 0.001$).

4.2 Tourists' perceived value of wildlife tourism product at LNNP

The study adopted a five-point Likert scale to measure the construct, perceived value of wildlife tourism product, with 1 being outstandingly valuable (OV), 2 being very valuable (VV), 3 being valuable (V), 4 being fairly valuable (FV), and 5 being not valuable (NV). A reliability analysis of the scale measuring the wildlife resource attributes indicated a Cronbach's Alpha of 0.768, which indicates acceptable internal consistency reliability (Boshoff, 2006; Cohen et al., 2007; Connely, 2008; Hair et al., 2006).

The results showed that 43.8% of tourists rated the unique wildlife resources as very valuable, followed by 24.9% as valuable and only 21.4% as outstandingly valuable. Regarding the variety of wildlife resources, 38.3% of the tourists rated the variety of wildlife resources as valuable, 33.1% as very valuable, 16.4% as outstandingly valuable, and only 8.2% as fairly valuable. Concerning abundance of wildlife resources, 32.6% of tourists rated the abundance of wildlife resources as very valuable, 30.8% valuable, 17.9% outstandingly valuable, and only 13.2% as fairly valuable as summarized in Table 1.

An evaluation on three indicators of wildlife resources was conducted. By indexing the indicators through the overall arithmetic mean (M) (henceforth referred to as mean) ratings, the component of wildlife resource attributes perceived by tourists as the least valuable was the abundance of wildlife resources ($M = 2.59$, $SD = 1.19$). This was followed by the variety of wildlife resources ($M = 2.53$,

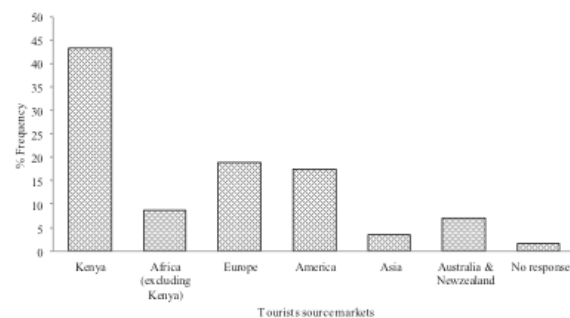


Figure 1: The source markets of the tourists' respondents at LNNP

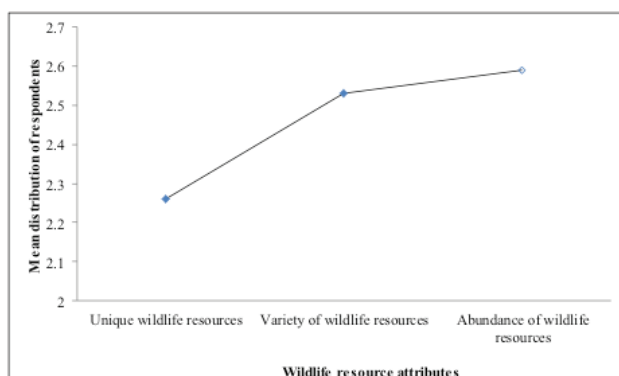
Table 1: The responses of domestic tourists and international tourist regarding the value of wildlife resource attributes at LNNP

| Wildlife resources attributes | Respondents | % Distribution of responses within attributes | | | | | | n |
|---------------------------------|------------------------|---|--------------|--------------|--------------|-------------|-------------|------------|
| | | OV | VV | V | FV | NV | NR | |
| Unique wildlife resources | Domestic tourists | 8.00 | 16.70 | 12.90 | 5.00 | - | 0.70 | 174 |
| | International tourists | 13.40 | 27.10 | 12.00 | 3.50 | - | 0.80 | 228 |
| | Total | 21.40 | 43.80 | 24.90 | 8.50 | 0.00 | 1.50 | 402 |
| Variety of wildlife resources | Domestic tourists | 5.50 | 11.90 | 18.70 | 4.50 | 1.00 | 1.80 | 174 |
| | International tourists | 10.90 | 21.20 | 19.60 | 3.70 | - | 1.20 | 228 |
| | Total | 16.40 | 33.10 | 38.30 | 8.20 | 1.00 | 3.00 | 402 |
| Abundance of wildlife resources | Domestic tourists | 4.70 | 13.70 | 12.60 | 9.00 | 1.50 | 1.80 | 174 |
| | International tourists | 13.20 | 18.90 | 18.20 | 4.20 | 0.50 | 1.70 | 228 |
| | Total | 17.90 | 32.60 | 30.80 | 13.20 | 2.00 | 3.50 | 402 |

Key: OV = Outstandingly Valuable; VV = Very Valuable; V = Valuable; FV = Fairly Valuable; NV = Not Valuable; NR = No Response; *M* = Mean; *SD* = Standard Deviation; *n* = Sample size

SD = 1.08), while the component that was rated as most valuable was unique wildlife resources (*M* = 2.26, *SD* = 0.99) as in Figure 2.

Tourists visiting LNNP considered the uniqueness of wildlife resources at the park as the most valuable, followed by their variety. LNNP has been marketed and well-known internationally as bird and rhino sanctuary (Dharani *et al.*, 2006) as well as Kenya's first Ramsar Site or Wetland of International Importance. It has also been designated as an Important Bird Area (i.e., sites of international significance for the conservation of birds) by Bird Life International (GoK, 2010; Onywere *et al.*, 2013; Ramsar, 2015). Based on these international re-known brands, tourists could exert a lot of value on the already created unique images of the park in the international market. This could be in line with the study at Tijuca and Iguazu National Parks in Brazil, where the perceived rep-

**Figure 2:** The mean distribution of the respondents in relation to perceived value of wildlife resource attributes at LNNP

utation among tourists was collectively responsible for 74 per cent of all Brazil park visitations in 2013 (ICMBio, 2014).

Comparing the category of tourists and their perceived ratings of the value of wildlife resources at LNNP, 16.7% of the domestic tourists rated unique wildlife resources as very valuable, 12.9% valuable, 8% outstandingly valuable, 5% fairly valuable and 0.7% had no response. On the other hand, 27.1% of the international tourists rated the unique wildlife resources as very valuable, 13.4% outstandingly valuable, 12% valuable, 3.5% fairly valuable and the rest (0.8%) had no response (Table 1). There was a significant relationship between the domestic tourists and international tourists in relation to unique wildlife resources ($\chi^2 = 9.792$, *df* = 4, *p* = 0.044) and the magnitude in relationship was moderate ($\eta = 0.133$).

In terms of variety of wildlife resources, 18.7% of the domestic tourists rated the variety of wildlife resources as valuable, followed by 11.9% as very valuable, 5.5% outstandingly valuable and 4.5% fairly valuable. Regarding international tourists, 21.2% rated it as very valuable, followed by 19.6% who rated the variety of wildlife resources as valuable, 10.9% outstandingly valuable, 3.7% fairly valuable while the rest (1.2%) had no response (Table 1). Response between domestic tourists and international tourists differed in relation to variety of wildlife resources ($\chi^2 = 15.360$, *df* = 5, *p* = 0.009) and the magnitude of the relationship had large effect ($\eta = 0.17$).

Abundance of wildlife resources was regarded as very valuable by 13.7% of the domestic tourists, 12.6% rated valuable, 9% fairly valuable, 4.7% outstandingly valuable

and 1.7% had no response. With reference to international tourists, 18.9% rated abundance of wildlife resources as very valuable followed by 18.2% valuable, 13.2% outstandingly valuable, 4.2% fairly valuable and only 0.5% rated it as not valuable (Table 1). There was a significant relationship between the domestic tourists and international tourists in relation to abundance of wildlife resources ($\chi^2 = 25.340$, $df = 5$, $p < 0.001$) and the magnitude of the relationship had large effect ($\eta = 0.20$).

Independent-samples t-test was used to compare the mean scores of domestic tourists and international tourists against the wildlife resources dimension mean score. During the independent-samples t-test, two variables were used including one categorical, independent variable (domestic tourists/international tourists) and one continuous, dependent variable (wildlife resource dimension) to establish whether there was statistically significant difference in the mean scores of the two groups (i.e. whether domestic tourists and international tourists differ significantly in terms of their response on wildlife resources dimension). The results of the independent-samples t-test showed that there was significant difference in the scores of domestic tourists ($M = 2.67$, $SD = 0.88$) and international tourists [$M = 2.30$, $SD = 0.88$; $t(400) = 4.18$, $p < 0.001$]. Further, eta squared was calculated based on the Cohen's (1988) formulae below:

$$\text{Eta squared} = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}$$

Where:

t = t-value

N_1 = Sample size of domestic tourists

N_2 = Sample size of international tourists

Thus, Eta Squared = $4.18^2 / 4.18^2 + (174 + 228 - 2) = 0.04$.

Therefore, the magnitude of the difference in the means was very small ($\eta = 0.04$).

The results show that, while both sets of tourists put emphasis on uniqueness and abundance of wildlife resources, the international tourists place more value on uniqueness and variety of wildlife resources at LNNP than the domestic tourists. In terms of variety, LNNP previously offered the best opportunity, especially for ornithological safaris due to millions of Greater and Lesser flamingos and other bird species representing one of the greatest ornithological spectacles on Earth (GoK, 2010). Since the park is also home to the endangered black and white rhinos, tourists could also put more emphasis on its uniqueness. These two unique wildlife species could have

contributed to the tourists' choice of the park compared to other national parks in Kenya.

While the international tourists could be well-informed about the expectations at LNNP by their tour guides, the domestic tourists could be lacking this kind of information before visiting the park, mainly because they visit the park as independent travellers. Therefore, the role of tour guides in creating destination images among tourists, especially under packaged tours, cannot be underestimated. This is because tour operators have the potential to influence tourists' holiday decision-making process (Lawton & Page, 1997; Woodside & Lysonski, 1989) and have influence on the long-term sustainability of destinations (Carey, Gountas, & Gilbert, 1997).

Moreover, recently, the lake water levels inside LNNP have gone high and is believed to be the highest water marks in the last over sixty years (Ramsar, 2015) leading to a reduction of wildlife terrestrial area (Ramsar, 2015) and submerging the original park road circuits and some KWS facilities. Oduor and Schagerl (2007) also acknowledge that the lakes' chemical, physical and biological properties are influenced by the catchment hydrological cycle affecting the conductivity and alkalinity of the lakes with significant effect on phytoplankton population, which in turn affect the flamingo population. Based on these park dynamics, continuous absence of flamingos at LNNP could have far reaching implications for the park in terms of park choice among tourists.

Tour operators are known as an important source of information about tourist destinations for tourists (Tomigová, Mendes & Pereira, 2016). While it can be argued that international tourists who are flamingo lovers could be guided by their tour operators to incorporate in their itinerary other destinations like Lake Bogoria National Reserve in Kenya or Lake Natron in Tanzania where flamingos are found, the domestic tourists would be disappointed after park experiences. There is also no documented evidence that all the international tourists visiting the park travel under inclusive package, and this could make independent international travellers susceptible to misinformation regarding the park. Ironically still, despite these changes, most advertisements, both local and international, still depict the park as a home to Greater and Lesser flamingos.

In tourism destination marketing, timely and up-to-date information to prospective customers is essential in managing customer's expectations and their actual experiences at the destinations. A study by King et al. (2012) recommended that park managers need to understand concepts such as destination image and formulate marketing initiatives accordingly to inform their appropriate visitor audience. An outcome of destination image is

tourist satisfaction with that destination. Therefore, dissatisfaction by tourists increases in direct relation to the gap between the image and their own tourism experience at a destination (Avcikurt, 2003). Vengesai (2003) further warned that satisfaction impacts a tourist's intention to revisit a destination as well as to recommend it to friends and family.

5 Conclusion and recommendation

Tourists' perceived value may form the basis that influences sustainability of wildlife tourism at LNNP. Understanding tourists' perceived value attached to wildlife resource attributes provides insight on what is valuable to tourists in their expectations as well as what should be supplied by destination managers to meet that expectation. On the other hand, adverse environmental changes currently experienced at LNNP could affect the uniqueness, variety and abundance of wildlife resources within the park, which could further directly affect tourists' experiences during their visit. Destination managers at LNNP, therefore, should be aware that visitors to the park regard the park to have unique and variety of wildlife attractions and highly demanded by international tourists than domestic tourists. Therefore, effective positioning of the park requires that those factors that visitors perceive as important be defined and well managed for competitive advantage in the marketplace. For example, while the park's natural environmental changes could be beyond park management, re-branding the park more as rhino sanctuary than as home to flamingos and pelicans. This strategy could help maintain visitor value and satisfaction in future, especially when the park's ecological challenges persist.

Reference

- [1] Akama, J. S., & Kieti, D. M. (2003). Measuring tourist satisfaction with Kenya's wildlife safari: a case study of Tsavo West National Park. *Tourism management*, 24(1), 73-81.
- [2] Al-Sabbahy, H. Z., Ekinci, Y. & Riley, M. (2004). An investigation of perceived value dimensions: implications for hospitality research. *Journal of Travel Research*, 42: 226-234.
- [3] Ariya, G., & Momanyi, S. (2015). Contribution of gold-ecorated lodges to poverty reduction among local residents in Maasai Mara and Amboseli protected areas, Kenya. *Journal of Tourism & Hospitality*, Vol 4(4), pp. 1-7.
- [4] Avcikurt, C. (2003). *Turizm Sosyolojisi*. Detay Yayıncılık: Ankara.
- [5] Bajs, I. (2015). Tourist perceived value, relationship to satisfaction, and behavioral intentions: the example of the Croatian tourist destination Dubrovnik. *Journal of Travel Research*, 54(1), 122-134.
- [6] Beeton, S. (2004). Business issues in wildlife tourism. In K. Higginbottom (Ed.), *Wildlife tourism: Impacts, management and planning* (pp. 187–210). Altona, Victoria: Common Ground Publishing Pty Ltd.
- [7] Burns, G. L. & Sofield, T. (2001). The Host Community: Social and cultural issues concerning wildlife tourism. *Wildlife Tourism Report No.4, Status Assessment of Wildlife Tourism in Australia Series*. Gold Coast: CRC for Sustainable Tourism.
- [8] Carey, S., Gountas, Y. & Gilbert, D. (1997). Tour operators and destination sustainability. *Tourism Management*, 18 (7), 425–431.
- [9] Chen, C. F. & Chen F. S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management*, 31(1), 29-35.
- [10] Chiu, Y., Lee, W. & Chen, T. (2014). Environmentally Responsible Behavior in Ecotourism. *Antecedents and Implications*. *Tourism Management*, 40, 321-329.
- [11] Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- [12] Connelly, L. (2008). Pilot studies. *Measuring*. *Journal of Nursing*, 17(6), 411-412
- [13] Cousins, J. A. (2007). The role of UK-based conservation tourism operators. *Tourism Management*, 28(4), 1020-1030.
- [14] Cravens, David W., Charles W., Holland, L. & William C. M. (1988). Marketing's Role in Product and Service Quality. *Industrial Marketing Management*, 17, (4), 285-304.
- [15] Curtin, S. (2010). Wildlife tourism: the intangible, psychological benefits of human-wildlife encounters. *Current Issues in Tourism*, 12, 5-6.
- [16] Dharani, N., Kinyamario, J. I. & Onyari, J. M. (2006). Structure and Composition of Acacia xanthophloea woodland in Lake Nakuru National Park, Kenya. *African Journal of Ecology*, 44, 523-530.
- [17] Dumand, T. & Anna S. M. (2005). The Role of Affective Factors on Perceived Cruise Vacation Value. *Tourism Management*, 26(3): 311-23.
- [18] Eagles, P. & McCool, S. (2002). *Tourism in National Parks and Protected Areas: Planning and Management*. Wallingford, UK: CABI.
- [19] Gale, B. T. (1994). *Managing customer value: Creating quality and service that customers can see*. New York: The Free Press.
- [20] Gallarza, M. G. & Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: an investigation of university students' travel behavior. *Tourism Management*, 27: 437-452.
- [21] Government of Kenya (2010). *National Climate Change Response Strategy*. Nairobi: Government Printers.
- [22] Hellier, P., Geursen, G., Carr, R., Rickard, J. (2003). Customer repurchase intention: A general structural equation model. *European Journal of Marketing*, 37(11), 1762-1800.
- [23] Higginbottom, K. (2004). *Wildlife tourism: Impacts, management and planning*. Gold Coast: Common Ground Publishing. CRC for Sustainable Tourism.
- [24] Higginbottom, K., Rann, K., Moscardo, G., Davis, D., & Muloin, S. (2001). Status assessment of wildlife tourism in

- Australia: An overview part II. Gold Coast, Queensland: CRC for Sustainable Tourism.
- [25] Higham, J. E. S., & Shelton, E. J. (2011). Tourism and wildlife habituation: reduced population fitness or cessation of impact? *Tourism Management*, 32(6), 1290-1298.
- [26] Holbrook, M. B. (1994). The nature of customer value: an axiology of services in the consumption experience. In: Rust R and Oliver RL (eds) *Service Quality: New Directions in Theory and Practice*. Thousand Oaks, CA: Sage, 21–71.
- [27] Huber, F., Herrmann, A., Morgan R. E. (2001). Gaining competitive advantage through customer value oriented management. *Journal of Consumer Marketing*, 18(1): 41-53.
- [28] Hutchinson, J., Fujun, L., & Youcheng W. (2009). Understanding the Relationships of Quality, Value, Equity, Satisfaction, and Behavioral Intentions among Golf Travelers. *Tourism Management*, 30(2), 298-308.
- [29] ICMBio (2014). Visitor Numbers in Protected Areas. General Coordination of Public Use and Business CGEUP (internal document), Brasília.
- [30] Kashyap, R. & David C. B. (2000). A Structural Analysis of Value, Quality, and Price Perceptions of Business and Leisure Travelers. *Journal of Travel Research*, 39(1) 45-51.
- [31] Kim, H., Woo, E. & Uysal, M. (2015). Tourism experience and quality of life among elderly tourists. *Tourism Management*, 46, 465-476.
- [32] King, L., McCool, S., Fredman, P. & Halpenny, E. (2012). Protected area branding strategies to increase stewardship among park constituencies. *PARKS*, 18(2), 55- 64.
- [33] Lawton, G., & Page, S. (1997). Evaluating travel agents provision of health advice to travellers. *Tourism Management*, 18(2), 89-104.
- [34] Manning, T. (1999). Opinion piece: Indicators of tourism sustainability. *Tourism Management*, 20 (2), 179–181
- [35] Monroe, K. B. (1990). In *Pricing: Making Profitable Decisions*. New York: McGraw-Hill.
- [36] Moscardo, G. (2008). Sustainable tourism innovation: Challenging basic assumptions. *Tourism and Hospitality Research*, 8(1), 4–13.
- [37] Moulton, M., & Sanderson, J. (1999). *Wildlife issues in a changing world* (2nd ed). London: Lewis Publishers.
- [38] Moutinho, L. (2011). How Far Does Overall Service Quality of a Destination Affect Customers Post-Purchase Behaviours? *International Journal of Tourism Research*, published online June 14, 2011.
- [39] Mvula, C. D. (2000). Fair trade in tourism to protected areas-A micro case study of wildlife tourism to South Luangwa National Park, Zambia. *International Journal of Tourism Research*, 3, 393-405.
- [40] Oduor, S. O. & Schagerl, M. (2007). Temporal trends of ion contents and nutrients in the three Kenya Rift Valley saline-alkaline lakes and their influence on phytoplankton biomass *Hydrobiologia*. *Hydrobiologia*, 548, 59-68.
- [41] Oh, H. (2000). Diners' Perceptions of Quality, Value and Satisfaction. *Cornell Hotel and Restaurant Administration Quarterly*, 41(3), 58-66.
- [42] Orams, M. B. (2002). Feeding wildlife as a tourism attraction: a review of issues and impacts. *Tourism Management*, 23(3), 281-293.
- [43] Parasuraman, A. & Grewal, D. 2000. „The impact of technology on the quality-value-loyalty chain: a research agenda“, *Journal of the Academy of Marketing Science*, vol. 28, no. 1, pp. 168-174.
- [44] Parasuraman, A. (1997). Reflections on gaining competitive advantage through customer value. *Journal of the Academy of Marketing Science*, 25(4), 332-342.
- [45] Petrick, J. F. & Backman, S. J. (2001) An examination of golf travellers' satisfaction, perceived value, loyalty, and intentions to revisit. *Journal of Tourism Analysis*, 6(3/4), 223-237.
- [46] Petrick, J. F. (2002). Development of a multi-dimensional scale for measuring the perceived value of a service. *Journal of Leisure Research*, 34(2), 119-134.
- [47] Petrick, J. F. (2004). The roles of quality, value, and satisfaction in predicting cruise passengers' behavioural intentions. *Journal of Travel Research*, 42(4), 397-407.
- [48] Prebensen, N., Woo, E., Chen, J. & Uysal, M. (2013). Motivation and involvement as antecedents of the perceived value of the destination experience. *Journal of Travel Research*, 52(2), 253-264.
- [49] Ramsar, (2015). National Report on the Implementation of the Ramsar Convention on Wetlands. URL: <http://www.ramsar.org>. (Accessed on 12.7.2016).
- [50] Reynolds, P.C., & Braithwaite, D. (2001). Towards a conceptual framework for wildlife tourism. *Tourism Management*, 22(1), 31–42.
- [51] Sánchez, J., Callarisa, L., Rodríguez, R. M., & Moliner, M. A. (2006). Perceived value of the purchase of a tourism product. *Tourism Management*, 27(3), 394-409.
- [52] Shackley, M. (1996). *Wildlife tourism*. London: International Thomson Business Press.
- [53] Sheth, J. N., Newman B. I. & Gross, B. L. (1991). *Consumption Values and Market Choice*. Cincinnati: South Western Publishing.
- [54] Sweeney, J. C. & Soutar, G. (2001). Consumer perceived value: the development of multiple item scale. *Journal of Retailing*, 77(2), 203-220.
- [55] Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: a study in a retail environment. *Journal of Retailing*, 75(1), 77-105.
- [56] Tomigová, K., Mendes, J. & Pereira, L. N. (2016). The Attractiveness of Portugal as a Tourist Destination: The Perspective of Czech Tour Operators. *Journal of Travel & Tourism Marketing*, 33:2, 197-210.
- [57] Tussyadiah, I. P. (2014). Toward a theoretical foundation for experience design in tourism. *Journal of Travel Research*, 53(5), 543-564.
- [58] Vengesai, S. (2003). A conceptual model of tourism destination competitiveness and attractiveness, ANZMAC Conference Proceedings, 637-647, Adelaide, University of South Australia, 1-3 December.
- [59] Viveiros de Castro, E., Souza T.B., & Thapa, B. (2015). Determinants of tourism attractiveness in the national parks of Brazil. *Parks*, 21(2), 51-62.
- [60] Weiler, B., & Yu, X. (2007). Dimensions of cultural mediation in guiding Chinese tour groups: Implications for interpretation. *Tourism Recreation Research*, 32(3), 13-22.
- [61] Weiler, B., Moore, S. & Moyle, B. (2013). Building and sustaining support for national parks in the 21st century: why and how to save the national park experience from extinction. *Journal of Park and Recreation Administration*, 31(2), 115-131.

- [62] Williams, P., & Soutar, G. N. (2009). Value, satisfaction and behavioral intentions in an adventure tourism context. *Annals of Tourism Research*, 36(3), 413-438.
- [63] Woodruff, R. B. & Gardial, S. F. (1996). *Know your customer: New approaches to understanding customer value and satisfaction*. Cambridge, MA: Blackwell Publishers.
- [64] Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139-153.
- [65] Woods, B., & Moscardo, G. (2003). Enhancing wildlife education through mindfulness. *Australian Journal of Environmental Education*, 19, 97-108.
- [66] Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.

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