THE IMPACT ON VISITATION AND THE RELATIVE IMPORTANCE OF ICONIC ANIMALS AS TOURIST ATTRACTION IN SELECTED SANPARKS

by

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ABSTRACT

The study focuses on the introduction/reintroduction of iconic animals in selected SANParks namely Addo Elephant, Karoo, and Mountain Zebra National Park. The purpose of the study was firstly to determine the relative importance of iconic animals as a tourist attraction in relation to other attractions, and to determine if their presence affects the type and number of visitors to the parks. Secondly it aimed to assess the willingness to pay to specifically view iconic animal species.

The collected data enabled us to compile a detailed description of the visitor profile including demographics, behavioural characteristics, purpose of visits and how these differ between the international and domestic markets. Results show that the relative importance of iconic animals is different across the selected parks, but remained a top 10 travel motivation. The research indicated a general tendency for an increase in visitor numbers with the introductions/reintroductions of iconic animals but not a significant change in type of visitor. Lastly the research indicated that the majority of respondents are willing to pay more for the presence of iconic animals in various categories.

This study supports the key research and management issue of using appropriate nature-based tourism as the best possible financial opportunity to support and supplement conservation whilst providing sustainable high quality, nature-based, value-for-money tourism experiences.

Further research will be done to compile a conceptual framework assessing the economic implications with regards to the introduction/ reintroductions of iconic animals to indicate the economic plausibility, assist in managerial and related investment decisions and conservation efforts.

TABLE OF CONTENTS

APPENDICES

LIST OF TABLES

LIST OF FIGURES

GLOSSARY

This study covers a number of concepts, namely: *"Big 5", iconic animals, introduction, flagship species, mega fauna, mega herbivores, reintroduction*, *tourism, tourists, tourism products, visitors, wildlife tourism,* and *wildlife.* The definitions of these concepts are listed below.

"Big 5" – In Africa, the "Big 5" game animals refer to the lion, African elephant, Cape buffalo, leopard, and rhinoceros.

Iconic animals – The term iconic means "very famous and well known, and is believed to represent a particular idea" (Macmillan Dictionary, 2014). Iconic animals are those emblematic animals which draw attention and that provide a focus for raising awareness and stimulating action and funding for broader conservation efforts. The "Big 5" of South Africa can be seen as flagship species as well as iconic animals.

For the purpose of this study the terms "Big 5" and "flagship species" will be included in the term iconic animals and will be referred to as iconic animals from this point forward.

Introduction – Animal introduction is the intentional movement and release of an organism outside its indigenous range to avoid extinction of populations of the focal species or to perform a specific ecological function (IUCN/SSC, 2012:3).

Flagship species – flagship species can be defined as "known charismatic species that serve as a symbol or focus point to raise environmental consciousness, and can be simultaneously described in terms of their ecological importance" (Higgenbottom, 2004).

Mega fauna – Mega is defined as "very large or huge" whereas fauna is defined as "animals or a catalogue of the animals of a specific region or period" (Macmillan Dictionary, 2014). Thus mega fauna are "large animals" and in this context can be considered as the "Big 5" namely the lion, leopard, rhinoceros, elephant, and buffalo.

Mega herbivores – Mega is defined as "very large or huge" and herbivore is defined as "an animal that feeds on plants". Thus mega herbivores are "large animals that feed on plants" and in this context include elephant, buffalo, hippo and rhinoceros.

Reintroduction – Reintroduction is the intentional movement and release of an organism inside its indigenous range from which it has disappeared (IUCN/SSC, 2012:2). Reintroduction aims to re-establish a viable population of the focal species within its indigenous range.

For the purpose of this study the term "introduction" will also incorporate the term "reintroduction" and can be used interchangeably from this point forward.

Tourism – Tourism comprises the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes (McIntosh, Goeldner & Ritchie, 1995:15). Tourism is a resource-based and complex industry made up of a wide range of interdependent sections such as transport, accommodation, attractions and entertainment (Ward, 1996).

Tourist – People who "travel to and stay in places outside their usual environment for not more than one consecutive year for leisure, and not less than one day, for business and other purposes not related to the exercise of an activity remunerated from within the place visited" (UNWTO, 1995).

Tourism products - Tourism products are both physical features (tangible) and services (non-tangible) found at a tourist destination which are expected to fulfil the needs of the tourist (Bennett, 2000).

Visitor – A person travelling to a place other than that of residence, for any main purpose other than to be employed by a resident entity in the country or place visited (UNWTO, 1995).

Wildlife – Wildlife refers to the life of non-domesticated animals in the natural environment (Rodger & Moore, 2004). In the broad sense wildlife is seen as the wild animals and wild

vegetation often referred to as the faunal and floral components of a natural environment (Shackley, 1996).

Wildlife tourism – Wildlife tourism involves travelling to a destination to view wild animals and the environment (Reynolds & Braithwaite, 2001). Pleasure in wildlife tourism derives from factors namely: viewing animals in the natural habitat, seeing a wide range of species, interacting with wild animals in close proximity, experiencing the sense of habitat (place), and sharing experiences with others (Curtin, 2005:2).

This study makes use of certain abbreviations throughout the document. Table 1.1 contains all the abbreviations and abstract terms used in this document and a brief explanation of the term.

Table 1.1: Abbreviations used in this document

Abbreviation	Meaning
AENP	Addo Elephant National Park
FIT	Frequent Independent Traveller
IUCN/SSC	International Union for the Conservation of Nature and Natural Resources / Species Survival Commission
KNP	Kruger National Park
MZNP	Mountain Zebra National Park
NP	National Park
SANParks	South African National Parks
TEV	Total Economic Value

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CHAPTER 1: INTRODUCTION TO THE STUDY

1.1 BACKGROUND

Tourism is the fastest growing industry in the world of which ecotourism is the fastest growing component (Gössling, 2000). There is particularly great opportunity for the development of ecotourism in Africa, as an enormous diversity of habitats and wildlife species are found there which include an abundance of large, charismatic species (Lindsey, Alexander, Mills, Romañach & Woodroffe, 2007:20). South African National Parks (SANParks) is South Africa's leading nature tourism organisation, receiving 4 941 697 visitors in 2013 and increasing to 5 235 095 visitors in 2014 (South African National Parks Annual Report, 2013/14:19). Tourism to national parks can be considered as the primary source of income for SANParks which gives them the ability to strive towards achieving conservation objectives. In 2011 SANParks adopted a new Responsible Tourism Policy to guide the development and management of tourism across all national parks. This policy aligns with new government policies and calls for tourism that supports biodiversity conservation, is environmentally efficient, and socially responsible (SANParks, 2012). SANParks has hereby identified that the need to continuously strive to provide a tourism product which visitors to SANParks want and which, at the same time, support the biodiversity principles of SANParks is of the utmost importance.

The tourism product can be broken down into two main categories: the core tourism product, which includes the fauna, flora, topography, and scenery of an area, and the auxiliary products, such as accommodation, meals, transport, and various other activities (Shackley, 1996). This study focuses mainly on the core tourism product, more specifically the fauna of selected SANParks. Fauna represents all the various animal species that exist within a specific region and in this study the so-called "iconic animals" and their

inherent ability to attract tourists to selected SANParks will be investigated. Auxiliary products will be discussed as far as to how they play a role in the decision making process of visitors (Leberman & Holland, 2005:23).

According to Leberman and Holland (2005:25), the term iconic means "very famous and well known, and is believed to represent a particular idea". South Africa is well known for its iconic animal species (e.g. Panthera leo (lion), Panthera pardus (leopard), Loxodonta africana (elephant), Ceratotherium simum (rhinoceros), Syncerus caffer (buffalo), Hippopotamus amphibius (hippopotamus) and Acinonyx jubatus (cheetah)). The parks that house these animals are also generally well known like the Kruger National Park which is considered as one of the largest game reserves in Africa and a 'must see' destination for international visitors (SANParks, 2012). More specifically the iconic animals of South Africa are known as the "Big 5" which refer to five of Africa's greatest wild animals - lion, leopard, elephant, buffalo and rhino. The term "Big 5" was originally coined by hunters, and referred to the five most difficult animals to hunt on foot in Africa (South African Explorer, 2013). The "Big 5" were not chosen for their size, but rather for the difficulty in hunting them, and the degree of danger involved. This term is still regularly used today as viewing iconic animals is usually high on the priority list of visitors and a real treat for many visitors to South African game reserves. According to Lindsey *et al.* (2007:19), iconic animals form part of one of the major attractions offered by national parks in South Africa and these animals have been a draw card for domestic and international tourism markets.

The desire for people to interact with wildlife in the natural environment continues to grow and the visitation to sites with wildlife in on the increase. The travel market considering iconic animals as main attraction or motivation for travelling typically include ecotourists, that travel to various different natural areas ranging from national parks to conservation areas. The attractiveness of the destination or reserve plays an important supporting role to the iconic animals and their relative importance with regards to other attractions. Large number of visitors to certain national parks and other protected areas can draw streams of money for conservation and development but unfortunately the large number of visitors also challenges the planning and management of these destinations. Charismatic or iconic species are thought to be a primary motivator for some tourist's decision-making to visit certain destinations (parks) and can be a key factor to financial competitiveness for

protected areas. Species popularity, driven by factors such as the publicity that the species has enjoyed in the media, physical attractiveness size, and conservation status, with rare and endangered species holding special appeal, are considered important factors affecting tourists' experience when visiting national parks.

The introduction and/or reintroduction of animals, in particular, iconic animals, into reserves for the purpose of appealing to visitors and ultimately increasing visitor numbers has been undertaken in many South African game reserves. One such case is the reintroduction, after an absence of 170 years, of lions (Panthera leo) into the Karoo National Park (Western Cape Tourism, 2012). As introductions and/or reintroductions of iconic animals into the selected parks could have negative as well as positive impacts, park managers must critically assess whether or not reintroductions and/or introductions are always the correct move to ensure meeting conservation objectives, business profitability, and visitor satisfaction (Dobson, Jones & Botterill, 2005:1).

The role of managers in national parks is changing rapidly. Historically, their responsibilities largely included managing the biophysical environment, but this has evolved to include social and financial responsibilities forcing them to ask strategic questions regarding the economic sustainability of the reserves they administer (Leberman & Holland, 2005:21). Even though there are studies such as those conducted by Lindsey *et al*. (2007), and Boshoff, Landman, Kerley and Bradfield (2007), on the views of visitors to nature reserves, this study will specifically focus on two perspectives relating to the introduction of iconic animals into parks: firstly, the impact on visitor numbers and profiles and secondly, the financial considerations with regards to their willingness to pay for the presence of iconic animals.

To be able to determine the impact of iconic animals on visitor numbers, the relative importance of the presence of iconic animals in the selected SANParks in relation to other attractions will be addressed. According to Chhetri, Arrowsmith and Jackson (2004), the satisfaction people receive from visiting a national park or protected area can be indirectly measured through the stimuli they receive from such an area, and also the experiences to which they are subjected when they come into contact with the set of natural characteristics that make up a national park or protected area. In the context of South

Africa, and more specifically, South African National Parks, the main natural characteristics that tourists come into contact with, are the fauna and flora of the region. Three parks that vary in their stages of development and the fauna they offer to tourists namely Addo Elephant National Park, Karoo National Park, and Mountain Zebra National Park, have been selected for this study. These selected parks have other attractions or travel motivations, besides viewing the iconic animals, which attract visitors to national parks as set out in the study of Scholtz, Kruger and Saayman (2013) which assesses the reasons why tourists visit the Kruger National Park. The importance of viewing iconic animals in these parks will be measured relative to these other attractions.

The "economic viability" of introductions and reintroductions of iconic animals into the selected parks depends on whether their presence attracts visitors that would otherwise not have visited these parks. The extent to which the presence of iconic animals in the selected parks is desired by visitors needs to be investigated. Iconic animals could also have an impact on the type of visitor to the parks, thus an analysis of demographic profiles, behavioural characteristics, purpose of visits and fluctuations in visitor numbers needs to be done.

Two questions are raised in this study:
- To what extent does the presence of iconic animals influence the type of visitor and visitor numbers to parks?
- What are the visitors willing to pay for the presence of the iconic animals in the selected SANParks?

1.2   PROBLEM STATEMENT

Studies such as those by Boshoff *et al.* (2007) on the views of visitors to Addo Elephant National Park and Lindsey *et al.* (2007) on the viewing preferences of visitors to protected areas in South Africa, support the idea that iconic animals are favoured in some parks. Scholtz *et al.* (2013), suggest that there are other attractions or travel motivations that attract visitors to National Parks which can be considered important aspects with regards to choosing a specific destination.

However, there appears to be a gap in the literature on the relative importance of the presence of iconic animal species in selected SANParks in relation to other attractions, and the effect they have on the type of visitors as well as visitor numbers.

South Africa has 21 National Parks, numerous local and provincial parks and also more than 9000 privately owned game reserves, all providing nature-based tourism products competing for nature lovers and ecotourists. Namibia, Zimbabwe, and Botswana are also becoming more competitive with regards to their nature reserves and ecotourism (Saayman & Van Der Merwe, 2004). According to Kruger, Saayman and Manners (2012), a competitive advantage is achieved if national parks keep up with the trends in nature tourism and the needs of nature tourists. Scholtz, Kruger and Saayman (2015) argue that SANParks are obliged to rely more heavily on tourist spending as there is a decrease in government grants available to them. This means that national park managers and marketers need to identify the market that will provide the highest return on investment by being willing to pay more for the presence of iconic animals in national parks, if they are to generate sufficient capital to continue to create favourable tourist destinations while at the same time conserving the natural environment (Kruger *et al.*, 2012; Tonge & Moore, 2007).

Addo Elephant, Karoo and Mountain Zebra National Park are in different biomes and offer different activities, services, amenities, wildlife species, and scenery. Park managers, therefore, need to know which specific features, such as viewing iconic animals, are motivating visitors to travel to these parks specifically to be able to market these parks according to these features. All three these parks have experienced an introduction and/or reintroduction of iconic animals in the last five years which now form part of their specific features. In South Africa where protected areas and especially private game reserves, are being run as conservation businesses to maximize economic return and provide local stakeholders with economic incentives, the presence (or absence) of the "Big 5" is part of their key marketing strategies. What is important here is the fact that while some parks draw visitors because they boasts the "Big 5", other parks' uniqueness can be promoted because of the absence of these 'dangerous' animals that opens up much more recreational opportunities.

This study thus aims to investigate what past, current and potential visitors to selected South African National Parks desire, what they expect, who they are, and why they visit the selected parks. In conjunction with this, the economic considerations relating to the willingness to pay for the presence of the iconic animals in the selected parks is investigated.

The problem statement can therefore be summarized as follows: There appears to be limited information or research on the effect that the presence of iconic animals has on visitor numbers to reserves as well as whether they attract a certain type of visitor. Furthermore the economic considerations in terms of willingness to pay for the presence of iconic animals need to be investigated.

Knowing what visitors want as far as iconic animals are concerned coupled with their willingness to pay related to the introduction or reintroduction of iconic animals, should provide some direction for further development on the nature based tourism product in South African National Parks.

1.3   PURPOSE STATEMENT

The overall purpose of this study is two-fold. Firstly, to determine the effect of iconic animals on tourist visitation by: analysing the relative importance of the presence of iconic animals in relation to other attractions in the selected SANParks: and whether the presence of iconic animals affects the type and number of visitors to the parks. Secondly, to assess the tourists willingness to pay for the presence of iconic animals.

1.4   RESEARCH OBJECTIVES

Based on the proposed problem statement, the following research objectives have been formulated:

- To determine what past, current and future visitors want from a nature-based tourism product in selected SANParks.
- To ascertain how closely the current offerings of the selected parks match visitors' nature-based product desires.
- To determine the relative importance of iconic animals as an attraction in the selected parks in relation to other attractions.
- To determine the relationship between the visitor numbers to the selected parks and the presence of the iconic animals.
- To determine if the type of visitor changes because of the introduction or reintroduction of iconic animals into the selected SANParks.
- To investigate visitors' willingness to pay for the presence of iconic animals in the selected SANParks namely Addo, Karoo and Mountain Zebra National Parks.

1.5   HYPOTHESES

In this study the following hypotheses will be tested:

H_1:   Iconic animals are a greater attraction relative to other attractions in selected SANParks.

H_2:   Visitor numbers will increase as a result of the presence of iconic animals in selected parks.

H_3:   The type or profile of visitors will change with the introduction or reintroduction of the iconic animals into the selected SANParks.

H_4:   Visitors are willing to pay more for the presence of iconic animals in the selected SANParks.

1.6   METHODOLOGY

The strategy of inquiry or research method that is used in this study is a quantitative approach providing the opportunity for numerical data collection. This research approach is similar to a number of studies by Maciejewski and Kerley (2014), and Lindsey *et al.* (2007), focusing on the wildlife viewing preferences of visitors. Boshoff *et al.* (2007), van der Merwe and Saayman (2008), and Scholtz *et al.* (2013) used a similar approach to determine the reasons why tourists visit national parks by looking at their travel motivations and views of different parks. A self-administered, web-based questionnaire is used based on measurement instruments used in previous studies, the research objectives of this study and a comprehensive literature review of the wildlife tourism industry and all its components. The questionnaire is distributed through e-mail to the target population including past, current and future visitors to the selected SANParks.

The target population is sampled by using a non-probability convenience sampling approach which is also known as accidental sampling. The units of analysis are sampled based on SANParks database of visitors from Addo Elephant, Karoo, and Mountain Zebra National Park who indicated their willingness to participate in surveys.

In order to meet the objectives of this study satisfactorily, various data analysis techniques are used including frequency analysis, measures of central tendency, cross-tabulations and chi-square tests, and analysis of variance (ANOVA) which are applied to test for significant differences.

The relative importance of iconic animals in relation to other attractions is determined by comparing the wants and desires of visitors with each other and ranking them in order of popularity. The impact of iconic animals on visitation is clarified by analysing the visitor numbers and the types of visitors before and after the hypothetical introduction or reintroduction of the animals into a specific park. The results of the cross-tabulations show whether there is a move towards iconic animals being an important reason for visiting a national park and identify the specific characteristics of these visitors. This will enable increased customer satisfaction by providing the right product offering and experience for the right people ensuring organisational sustainability. This also allows greater provision of

information as to why iconic animals can be considered an important or unimportant determinant in the wildlife tourism industry specifically in the selected national parks.

1.7 IMPORTANCE OF RESEARCH

Natured-based tourism is an important tourism product for South Africa and those involved are continually striving to improve the products offered by nature-based tourism organisations. This study aims to provide information on factors concerning the implementation and offering of nature-based tourism products.

Effective managerial decisions depend on creating a balance between increasing visitor numbers through the reintroduction of iconic animals, if so desired by visitors, and the environmental and economic implications that may arise from such reintroductions in South African National Parks.

The environmental impact of the reintroductions of iconic animals into selected parks falls outside of the scope of this study and, based on secondary sources, the premise on which this study continues is that the environmental impact assessment of reintroductions of iconic animals has been conducted in the selected parks. The study assumes that the selected SANParks, namely Addo, Karoo, and Mountain Zebra National Parks, are environmentally suitable and appropriate for introductions or reintroductions of iconic animals. Thus, this study focuses on the impact on visitor numbers and types as well as financial considerations with regards to the willingness to pay for the presence of iconic animals. This study can contribute in two ways: first from an academic perspective where information gained from the research results will add to the body of knowledge on what visitors want and what the economic implications of reintroductions are, and secondly from a management perspective where economic risk would be minimised.

Conducting a scientific study would enhance the possibility of making effective decisions relating to nature-based tourism products. Such products could maximise revenue and meet visitor desires, while still considering the impact on the environment. Consequently, a study that explores the desires of reserve visitors, and provides insight into the relative importance of the presence of iconic animals in selected SANParks in relation to other

attractions would give valuable information for the purpose of balancing tourism with biodiversity and economic sustainability.

1.8   DELIMITATIONS OF STUDY

This study has the following parameters:

- The study covers Addo, Karoo and Mountain Zebra National Parks.
- The study only deals with the core nature based product and will not explore the influences of sub-products (accommodation, location etc) directly.
- The study assumes that the selected SANParks are ecologically viable for introductions and/or reintroductions of iconic animals as the analysis of the impact on the environment and the ecological viability falls outside the scope of the study.
- The study will focus on the relative importance and influences of iconic animals as a determinant in visitor numbers and type of visitors.
- The study is not generalisable to all SANParks and nature reserves.

1.9   STRUCTURE OF DISSERTATION

The dissertation is organised into chapters as follows:
- Chapter one provides a background to the study and introduces the objectives of the study based on the problem identified under the problem statement. It also states the formulated hypotheses and discusses the academic importance and contribution of the findings to nature-based and wildlife tourism.
- Chapter two provides literature on the wildlife tourism industry. It shows the relationship between nature-based tourism, ecotourism and wildlife tourism by discussing the different types of wildlife tourism, the wildlife tourism product and experience, and how there is an increase in demand for wildlife watching. The chapter then concludes by analysing the market size and the main market groups.
- Chapter three continues with the concept of wildlife watching explaining the various impacts of iconic animals as wildlife tourism product. It provides an overview of what the introduction and/or reintroduction of iconic animals mean and entail, and then on

the various impacts. The chapter first focuses on the impact on visitation by looking at all the influencing factors and then continues to describe the possible impacts on the environment.

- Chapter four presents a discussion on the economic considerations of wildlife tourism in general and then focuses specifically on tourist willingness to pay for the presence of iconic animals in the selected SANParks.

- Chapter five describes the chosen methodology that is followed in order to reach the research objectives. It provides an overview of how the measurement instrument was developed and how the research was executed.

- Chapter six presents the research results. The research results are discussed in terms of the descriptive statistics (frequencies), hypotheses tests and other findings.

- Chapter seven provides a final discussion and summary of the results of the study; the researchers' recommendations based on the findings, managerial implications, the limitations of the study and finally directions for future research in the field of the wildlife tourism industry.

1.10   CONCLUDING REMARKS

This chapter identifies the gaps in the research of wildlife tourism specifically regarding iconic animals as tourist attraction in South African National Parks. This presented an opportunity for investigating the relative importance of iconic animals and their impact on visitation, the environment and economic implications. The research objectives and the suggested hypotheses that are tested in the study were specified followed by a brief description of the methodology used to successfully execute them.

The next chapter provides a comprehensive overview of the literature relevant to the study with the view to provide sufficient background to address the research objectives. The chapter will create an understanding of the role of iconic animals as tourist attraction in selected SANParks, the impacts they have on tourist numbers and types of tourists and a context to determine their willingness to pay for the presence of iconic animals in South African National Parks.

CHAPTER 2: THE WILDLIFE TOURISM INDUSTRY

2.1 INTRODUCTION

The previous chapter presented the research problem and specified the research objectives. The boundaries of the study were determined, the assumptions on which the study is based were provided; and the importance of the study discussed. The literature on the topic of iconic animals as a tourist attraction and the economic implications will be divided into two main sections. This chapter provides a background of the wildlife tourism industry and begins by clarifying the link and relationship between nature-based tourism, ecotourism and wildlife tourism. Then the chapter continues to broaden the understanding of wildlife tourism focusing specifically on the different types, the wildlife tourism product and experience and how wildlife watching integrates into tourism in general. The chapter concludes with a discussion on the demand for wildlife tourism.

2.2 NATURE-BASED TOURISM AND ECOTOURISM

Tourism that features 'nature' is generally termed environmental or 'nature-based tourism'; a broad term that includes a range of tourism experiences including ecotourism and wildlife tourism (Tapper, 2006:5). These experiences can range from active to passive and include everything from bushwalking and adventure tourism experiences to sightseeing, scenic driving, beach experiences and wildlife viewing. In many instances a visitor may combine several of these activities in the one trip which may vary in level of importance according to the primary motivation for travel.

Kuenzi and McNeely (2008:1) argue that 'nature-based' tourism, involves excursions to national parks and wilderness areas of developing countries where a large portion of the world's biodiversity is concentrated. According to Saayman (2014:184), South Africa is considered a well-known nature-based tourism destination where tourists travel to experience and see the wide variety of fauna and flora offered in its 21 national and more than a hundred provincial parks and other conservation or protected areas. It is also seen as "the segment in the tourism market in which people travel with the primary purpose of

visiting a natural destination" (Kuenzi & McNeely, 2008). According to Tourism Western Australia (2006:3), nature-based tourism directly depends on nature and natural environments to be successful. Fundamentally, the role of nature can vary from 'crucial to the visitor experience' to 'enhances the visitor experience'. For passive and active visitors alike, nature is also playing an increasingly important role in giving something back to the community. By doing so, it is able to enhance their broader experience of a destination. Taking the above into consideration, nature-based experiences can be seen as being intimately linked to all other aspects of the visitor's total experience of a destination, such as food, culture, relaxation, health, escape, family needs, accommodation, and transport. This shows that the nature-based tourism product is not solely responsible for the travel experience but is considered part of a bundle of products that together contribute to the total experience. All aspects serve to complement each other and together form the basis of a visitor's overall satisfaction with their holiday.

Nature-based tourism and its various subsets can also encompass some particularly challenging, but potentially high spending, special interest market segments. These often comprise socially and environmentally aware, highly educated and potentially demanding visitors who travel both to learn and to achieve personal and social goals (Tisdell, 2003:82). Ecotourism is considered a subset of nature-based tourism, and unlike nature-based tourism, ecotourism is more than just visiting national parks and travelling to unspoilt natural areas. According to Tourism Western Australia (2006:2), the ecotourism industry has developed to cater for tourists with an interest in the environment - a desire to learn, to appreciate, to understand and to conserve.

Ecotourism is considered being careful of the environment as it helps to conserve nature and thereby contribute to the sustainability of tourism reliant on wildlife (Tisdell, 2003:83). Its primary focus is seen as experiencing natural areas, that fosters environmental and cultural understanding, appreciation, and conservation. Sekerciogll (2002) states that "ideally ecotourism creates a local incentive for conserving natural areas by generating income through operations that are sustainable, low impact (environment and social), low investment, and locally owned". In the popular mind, 'ecotourism' is considered to be good, creating a normative connotation.

Ecotourism is a very broad term and includes various other forms of tourism. Figure 2.1 indicates that wildlife tourism can be considered as a further subset of nature-based tourism and occupies a specialist niche within ecotourism. Oftentimes used interchangeable with ecotourism and nature-based tourism, wildlife tourism is a distinct but related category. According to Skibins, Hallo, Sharp and Manning (2012:116), wildlife tourism may be considered a form of nature-based tourism because the primary activity is viewing animals, and it may also be a form of ecotourism if interpretation and sustainable practices are present. Within the context of the study which focuses on the relative importance of the presence or viewing of iconic animals, the relevant subset of tourism can be considered as wildlife tourism or wildlife watching tourism. The following section will provide a more detailed understanding of the term and the concept.

Figure 2.1: Subsets of tourism

2.3   WILDLIFE TOURISM

Wildlife tourism is a growing and important segment of the tourism industry (Fennell, 2008). Wildlife is a general term that technically covers both the faunal and floral components of a natural environment, although in popular use, wildlife is mostly used to refer to non-domesticated animals in the wild (Tapper, 2006:10). Wildlife tourism involves travelling to a destination to view wild animals and the environment (Reynolds & Braithwaite, 2001). Pleasure in wildlife tourism derives from factors namely: viewing

animals in the natural habitat, seeing a wide range of species, interacting with wild animals in close proximity, experiencing the sense of habitat (place), and sharing experiences with others (Curtin, 2005:2). Wildlife watching is an activity that involves the watching of wildlife which is considered to be essentially an observation activity with some exceptions that can involve interactions with the animals being watched. According to Tapper (2006:10), the tourism industry tends to use the term 'wildlife tourism' rather than wildlife watching tourism.

As indicted in Figure 2.1, wildlife tourism is a niche form of nature-based tourism and can, under certain definitions, be classified as a form of ecotourism (Dobson *et al*., 2005:1). The Cooperative Research Centre (CRC) for Sustainable Tourism (2001) describes wildlife tourism as "tourism that involves travel to observe wildlife in natural environments and preferably their native habitat, which is considered as the natural home or environment". Wildlife tourism involves wild and non-domesticated animals and can encompass free-ranging and captive circumstances. It is a further subset of nature tourism and one in which significantly high levels of domestic and international interests exist.

Wildlife tourism is a controversial issue. Many conservationists and natural resource managers believe that wildlife tourism can jeopardize the integrity of ecosystems, in general, and wildlife population dynamics and behaviour, in particular (Sinha, 2001:1). However, according to Tapper (2006:15), if properly managed, wildlife tourism can be a tool for biodiversity conservation. Furthermore, the tourism industry as well as some sectors of the government sees the economic and educational benefits of wildlife tourism. To shed some light on this controversy the following sections aim to provide more detail regarding these different views to create a clear understanding about wildlife tourism.

2.3.1   Types of wildlife tourism

According to Skibins *et al.* (2012:116), wildlife tourism can be defined or categorized either by the type of animals encountered (e.g., domesticated/non-domesticated, marine, avian), the setting or degree of confinement of the animals (e.g., natural/captive), or the tourist activity, being either consumptive (e.g., hunting, fishing) or non-consumptive (e.g., wildlife watching, photography).

Higginbottom (2004:4) confirms these categories of wildlife tourism stating that there are key variables that have most commonly been used to classify various forms of wildlife tourism. These key variables are:

1. Consumptive vs non-consumptive wildlife tourism

    Consumptive use of wildlife for recreation involves the extraction of animals from the environment through capturing or killing target animals (Sinha, 2001:4). From a tourism perspective consumptive tourism predominantly relates to hunting and fishing. Non-consumptive wildlife tourism involves viewing wildlife which includes recreational activities that do not harm the species being observed (Dobson *et al.*, 2005:1). Wildlife watching, video-recording and photography are the most common forms of non-consumptive recreational activities.

2. Captive vs free ranging continuum

    These variables reflect the degree or level of confinement of animals.

3. Wildlife-dependent vs wildlife-independent

    According to Sinha (2001:3), wildlife tourists who participate in wildlife-dependent activities have the deliberate intention and expectation to see or interact with wildlife in the destination area (purposive motivation of tourists). In contrast, wildlife tourists who participate in wildlife-independent activities are tourists who travel without specific intention of experiencing, viewing or interacting with wildlife. Sinha, (2001:3) further states that these tourists consider their wildlife encounter as an added value to their recreational experience (incidental motivation of tourists).

Taking the above mentioned variables into consideration it becomes evident that wildlife tourism is classified according to the motivation of tourists and the level of interactions of tourists with wildlife (Sinha, 2001:3). According to Cong, Wu, Morrison, Shu and Wang (2013:300), wildlife interactions like observing, feeding, touching, photographing, or otherwise experiencing wild animals occur in a wide variety of settings worldwide giving rise to wildlife tourism. This study focuses on the relative importance of the presence of iconic animals in selected SANParks concerning itself with wildlife viewing which is regarded as a minimum impact activity and described as a non-consumptive use of wildlife.

2.3.2 The wildlife tourism product

In order to analyse the wildlife tourism product, the content and structure of the overall tourism product should be evaluated. The content of the tourism product is compiled of several components of the experience and the structure refers to how components combine to create the experience (Webb, 2003). Tourism service providers, especially managers, have to understand both content and structure of the product and service experience for tourists. According to Bennett (2000), components that define the tourism product are attractions, facilities, accessibility, image and price.

Attractions must be appealing to be able to motivate tourists and serve as a reason for visitation whereas the facilities should complement the attractions. They do not attract tourists as such, but their absence could discourage people to visit a specific tourist destination. Examples of such facilities are accommodation, transport and restaurants. Furthermore, tourist destinations must be accessible. This means that infrastructure such as roads and rail, equipment such as vehicles, operational factors such as frequency of services and fares and regulations on transport operations have to be kept in good form and standard. Similarly, Pearce (1989) believes that the tourism product comprises physical and service features expected to fulfil the needs of the buyer.

The image tourists have of a destination is vital for ensuring continued visits. People's perceptions are formed on the basis of experience, word-of-mouth recommendation, marketing and the prospective tourists' needs. Tourists form an image of destinations on the basis of their perceptions (Kerley, Geach & Vial, 2003).

Price is another important component of the tourism product as the tourism experience is purchased (Bennett, 2000). According to Pearce (1989), components within the content of the tourism product (attractions, facilities, accessibility, image and price) combine to form the structure of the product which is created when all components complement each other.

Taking the above into consideration, it becomes evident that product development must concern all components of the tourism product in order to enhance the tourist experience. The quality of the experience is ensured when the tourism products and services meet the market place demands and is based on the efficient and effective use of resources at a

destination. To meet the market place demand it becomes crucial to segment and identify the target market for the specific tourism product namely the wildlife tourism product.

According to Reynolds and Braithwaite (2001:33) wildlife tourism products can be divided into seven categories. Table 2.1 describes the seven different categories of the wildlife tourism product.

Table 2.1: Categories of the wildlife tourism product

Category :	Description:
Nature-based tourism with wildlife	Many nature-based tours show wildlife as a key but incidental part of the product.
Locations with good wildlife opportunities	Accommodation establishments are located in close range to wildlife-rich habitat. They may even contrive to attract wildlife through provision of food or other enticement.
Artificial attractions based on wildlife	Some species are used to form the basis of a man-made attraction where the species is kept in captivity, and may even be trained. Some of these attractions may have detrimental effects on the animals.
Specialist animal watching	Tours like these cater for specialist interests in a species or group of species. Bird watching can be seen as a good example.
Habitat specific tours	These tours are based on a habitat that is rich in wildlife and usually open to being accessed by a specialised vehicle or vessel.
Thrill-offering tours	The basis of these tours is the exhibition of a dangerous or large species enticed to engage in spectacular behaviour in the wild.
Hunting/fishing tours	This consumptive use of wildlife may be in natural habitat, semi-captive or farmed conditions. This may involve killing the animal or releasing it.

Source: Reynolds and Braithwaite (2001:33-34)

As the study focuses on viewing iconic animals as a tourist attraction in national parks it becomes apparent that the wildlife tourism product in this case includes some of the categories mentioned above. Viewing iconic animals can be considered nature-based tourism with wildlife as the animals are a key part of the product and the national parks that hold these iconic animals are considered as locations with good wildlife opportunities providing habitat specific tours. It can be seen as specialist animal viewing if focusing on

the "Big 5" which can simultaneously offer thrill-offering tours of large and potentially dangerous animal species with spectacular behaviour patterns.

According to Cong *et al.* (2013:308) visitor-wildlife encounters comprise the core of wildlife tourism products if a commercial operator is involved and of wildlife tourism experiences if there is no operator involved. The following section discusses the wildlife tourism experience and how it is unique in its definition.

2.3.3   The wildlife tourism experience

Wildlife tourism experiences occur from interactions between humans and wildlife which provide opportunities to observe and interact with animals that may be endangered, threatened or rare (Higham & Shelton, 2011; Orams, 2002). The experiencing of wildlife by tourists has become the business of wildlife tourism (Reynolds & Braithwaite, 2001:31).

According to Reynolds and Braithwaite (2001:35), tourism experiences involving wildlife vary greatly in the emphasis or intensity of the encounters and are thus dependent on two main components – namely the richness or intensity, and the control of the wildlife encounter:

1. Richness or intensity

   To capture the essence of quality and richness of the wildlife tourism encounter for the person experiencing it. To be able to do this, Reynolds and Braithwaite (2001:35) developed a conceptual framework for wildlife tourism and suggested six quality factors that are essential to the situation:

   - Authenticity

     Authenticity is seen as the degree of natural behaviour exhibited by the fauna, and the environment in which it is viewed in providing an estimate of the "honesty" of the attraction.

   - Intensity

     Intensity refers to the excitement generated by an experience that for some can be seen as an adrenalin rush.

- Uniqueness

  For an experience to be unique it must be seen as special and unusual which makes the participant feel privileged.

- Duration

  The duration of the experience refers to the length of exposure to the stimuli. It is known that up to a certain point the experience is heightened but beyond this point the visitor is saturated with the particular experience.

- Species popularity

  The popularity of a species is driven by a range of factors, which include physical attractiveness, its size, danger and drama associated with it, and the publicity that the species has enjoyed in the public media.

- Species status

  The status of a species refers to the rarity of the animal. Species that are listed on rare and endangered lists appear to hold a special attraction for visitors to experience them.

2. Control of encounter

According to Sparks (1994), it is clear from service management research that control over the wildlife tourism encounter is a key determinant of customer satisfaction or dissatisfaction. The quality of the experience can provide greater or lesser satisfaction for an observer, and depends on the degree of control of the wildlife encounter which the observer feels he or she has.

Management methods for control of the experience can be divided into physical and intellectual (Reynolds & Braithwaite, 2001:37). The physical control is managed by tangible separation from the animal through either having a guide present, or other forms of barriers external to the observer. Intellectual control is the amount of expert knowledge transmitted by the guide or other interpretation mechanisms. Taking this into consideration, it becomes clear that the level of understanding available at a wildlife encounter can strongly influence the level of satisfaction of the observer.

According to Reynolds and Braithwaite (2001:38) relevant factors include:

- educational level of observers;
- communication with previous visitors;
- pre-reading by observers;
- level of knowledge of guide (if applicable);
- communication skills of guide;
- personal guide-observer rapport;
- motivation levels of guide and observer (e.g. could be affected by tiredness);
- on-site interpretation aids.

According to Higginbottom and Buckley (2003:15), variations among different forms of wildlife watching may relate to one or more of the following: primary objective, level of interpretation provided by the tourism operator, type of transport or platform, seasonal or daily variations, concentration or dispersion of the wildlife, managerial and social settings, degree of wilderness, type of environment and price variations. These cause that the design or context of the wildlife experience is quite varied (Valentine & Birtles, 2004:16) and includes:

- Unguided encounters with wildlife in natural areas (e.g. national parks) with no direct involvement of commercial tourism operators
- Specialised wildlife tours (e.g. Bird-watching tours, safari tours, whale watching tours)
- Managed locational attractions featuring a natural aggregation of wildlife (e.g. penguin breeding colonies, fish aggregation areas, migratory pathways for birds and mammals, glow-worms in caves)
- Nature-based tours that include wildlife (e.g. national park tour with game drive, regional protected area tour, day trip to specific habitat areas with a wildlife component)
- Research, conservation or education tours involving wildlife, offered by organisations whose primary role is not tourism (e.g. university groups, Earthwatch, conservation NGO's, some government and NGO alliances)
- Sightseeing tours that include some element of incidental wildlife-watching
- Accommodation or other tourism facilities that feature surrounding wildlife (e.g. resorts, farm-stays).

Webb (2003) emphasises a need to understand the tourism experience because it can assist in deciding the management style of the tourism industry. He believes that this understanding is also important for determining levels of satisfaction. In order to have a better understanding of tourist satisfaction as a concept, there is need to define satisfaction. There are several similar descriptions and definitions of satisfactions by various authors. Bigne, Sanchez and Sanchez (2001:609) state that satisfaction is "the result of comparison between expectations and the perception of the performance" whilst Taylor and Baker (1994) argue that satisfaction is the comparison between the experience of a service quality and what was initially expected. Tian-Cole and Crompton (2003) came up with two approaches to describe satisfaction, one of them being the need-based approach. This approach holds that satisfaction is closely related to motivation and will result from corresponding motives being met. This perspective describes satisfaction as a static fulfilment of needs which is the case for wildlife tourism experiences.

From this it becomes clear that tourist satisfaction is the positive perceptions that tourists form or gain after engaging in tourism activities or the degree to which tourists are pleased with their experiences. Thus tourist satisfaction can be summarised as the visitors' quality of experience, which is the psychological outcome resulting from their participation in tourism activities. The importance of tourist satisfaction is that it can generate consumer loyalty, more word of mouth advertising and increased repeated visits. A tourist satisfying destination is likely to grow and the overall improved service delivery is likely to increase tourist satisfaction levels. However, it must be noted that a poor performance in one component of tourism service is likely to negatively affect good performance in other components.

2.3.4   Tourism and increasing wildlife watching

According to Tapper (2006:12), wildlife tourism shows large growth which can be seen in the number of different types of wildlife watching activities that have been developed. The growth in wildlife tourism and the development of new activities is linked to an expansion of commercial tourism, the numbers of tourism businesses that offer these activities, and the numbers of tourists that engage in them (Curtin, 2010).

Tapper (2006:13) argues that wildlife tourism is likely to continue to grow as a result of:
- the long-term interest that many people have in wildlife,
- the affluence and longevity of people in industrialised countries that enables them to travel to enjoy the interests in wildlife once they have retired,
- the general desire amongst tourists to seek new experiences through tourism,
- the increased involvement by the commercial tourism sector,
- the diversification of wildlife opportunities which are adding a wider range of environments or protected areas, species and types of activities,
- increased environmental concern and awareness.

For wildlife tourism to be successful the market demand must be realistically assessed in terms of price, quality and type of activities preferred to be able to appeal to the specific kind of tourist in the area. Lindsey *et al.* (2007:30) state that international tourists visiting South Africa are primarily interested in large predators, while locals, more experienced wildlife tourists show more interest in bird diversity, plant diversity and scenery, and are less interested in high profile animal species. The tourism industry is highly responsive to market demand, and is likely to continue to develop tourism products to meet consumer interests in wildlife. Tapper (2006:14) says that the key factors in wildlife tourism are "being able to experience animals in the wild, to observe their 'natural' behaviour, and to appreciate their beauty". The public's attention inevitably tends to focus on species that are more easily observed which include particularly larger species that show dramatic behaviours – such as predators, certain symbolic animals, or rare and exotic species (Skibins *et al.,* 2012:112). Wildlife tourism thus often focuses on large, charismatic megafauna, such as the "Big 5", which oftentimes function as flagship species and becoming the icon of South Africa. Flagship species are seen as those animals that are used to raise funds and increase awareness for conservation efforts.

Skibins *et al.* (2012), argue that, although species preferences may be audience specific, viewing flagship species can influence affective responses in viewers and these interactions are an important component of the wildlife tourism experience. To ensure a satisfactory wildlife tourism experience, park managers need to balance providing maximum viewing opportunities of all iconic animal species while minimizing impacts to the animals. An understanding of how each species of the iconic animals contribute to visitor satisfaction can provide the park managers guidance in facilitating maximum visitor satisfaction, minimizing wildlife impacts, and enhancing the economic viability of the parks (Skibins *et al.,* 2012:113).

2.3.5   Demand for wildlife tourism: market size and main market groups

There is an increase in tourist demand to interact with wildlife, especially with animals that are unusual or endangered (Rodger, Moore & Newsome, 2007; Semeniuk, Haider, Cooper & Rothley, 2009; Shackley, 1996), and with non-captive animals that are deemed to be attractive and interesting (Weaver, 2005). The views of visitors to national parks provide an important source of information to guide park planners and managers (Boshoff *et al.,* 2007:189). According to Tapper (2006:16), the main market segment that demands wildlife tourism are the general package-holiday or high volume tourism market, the specialist tourism market, and the independent travel market. The profiles of tourists engaging in wildlife watching depend very much on the type of activity and its location, as wildlife tourism consists of a wide range of different species in different locations.

To best identify the main market groups for wildlife tourism is to assess the typology of international tourists that visit protected areas. Table 2.2 displays the type of tourist as well as their main features.

Table 2.2: Typology of international tourists that visit protected areas

Type of tourist	Main features
Explorer	Individualistic, solitary, adventurous, requires no special facilities. May be relatively well-off, but prefers not to spend much money. Rejects purpose-built tourism facilities in favour of local ones.
Backpacker	Travels for as long as possible on limited budget, often taking a year off between school/university and starting work. Hardship of local transport, cheap accommodation, etc. may qualify as travel experience, rather than understanding local culture. Enjoys trekking and scenery, but often cannot visit remote areas because of expense. Requires low-cost facilities.
Backpacker Plus	Often experienced travellers, and generally in well-paid professions. More demanding in terms of facilities than Backpackers and with a higher daily spend. Genuinely desire to learn about culture and nature, and require good information.
High Volume	Often inexperienced at travelling, prefer to travel in large groups, may be wealthy. Enjoy superficial aspects of local culture and natural scenery and wildlife if easy to see. Need good facilities, and will only travel far if the journey is comfortable. Includes cruise ship passengers.
General Interest	May travel as Free Independent Travellers (FITs) on tailor-made itineraries with a tour operator, and often prefer security and company of group tour. Usually have limited time available for holiday. May be relatively wealthy, interested in culture, keen on nature/wildlife when not too hard to see. May be active and enjoy 'soft adventure' such as easy trekking and low-grade white-water rafting. Dislike travelling long distances without points of interest. Need good facilities, although may accept basic conditions for short periods.
Special Interest	Dedicated to a particular hobby, fairly adventurous, prepared to pay to indulge hobby and have others take care of logistics. Travel as Frequent Individual Traveller (FIT) or groups. May have little interest in culture. Requires special facilities and services for example dive-boats or bird-guides. Accepts discomfort and long travel where necessary to achieve aims. May have active involvement for example environmental research project. Prefers small groups.

Source: Cochrane (2003:13-14)

Tapper (2006:16) states that the key factors that have several implications for wildlife tourism in terms of the typology are:

- available budget,
- experience of travelling,
- requirement for comfort,
- preference for travelling alone or in large or small groups,
- the degree of interest in local culture and nature.

According to Dwyer, Edwards, Mistilis, Roman and Scott (2008:66), "the different demographic trends such as population and aging, urbanisation, changing social structures, health, changing work patterns, gender, and education, have a great effect on almost all social institutions including tourism". This indicates that travellers who come from different demographical backgrounds get motivated to visit a destination in a different way compared to other travellers and these different motivations have an impact on the various tourism institutions.

One of the research questions of this study relates to the type of tourist and their specific characteristics and behaviours. Boxall and McFarlane (1993), Pearce and Wilson (1995), Moscardo (2000), Fredline and Faulkner (2001), and Moscardo, Woods and Greenwood (2001) compiled various studies on the differences between wildlife tourism markets and other tourists which point out that the specific characteristic of a general wildlife tourist can be summarized as being more likely to be older, to stay longer, to spend more, to be independent, and have higher levels of education and income. The main market group visiting national parks, specifically Addo Elephant, Karoo, and Mountain Zebra National Park, will be identified in the empirical research phase. Segmenting the market to identify the specific type of tourist visiting the selected national parks, their unique characteristics and their specific behaviours will also assist in attracting the right visitor by providing the correct product offering to satisfy their needs

2.4   CONCLUSION

This chapter presented the literature reviewed on the wildlife tourism industry and its components. It provided an overview of the industry by discussing the relationships between the different sub-divisions specialising in areas such as nature tourism, ecotourism and wildlife tourism. The various components of wildlife tourism were explained broadening the understanding of the different types of wildlife tourism, the different categories of the wildlife tourism product and experience, the growth in the market and the demand for specialised wildlife tourism. It was suggested that, as the study focuses on the relative importance of the presence of iconic animals in selected parks, it concerns itself with viewing wildlife which is regarded as a minimum impact activity and described as a non-consumptive use of wildlife.

Galley and Clifton (2004) suggest that the concept of sustainability is crucial to wildlife tourism because it has become a popular industry in many countries utilising the natural resources in an economic way. To do this tourist satisfaction needs to be achieved by providing tourists with their preferred tourism product offerings or experience. Iconic animals as tourist attraction can retain the current market and attract new relevant markets thus increasing the visitor numbers, the demand and ultimately the willingness to pay.

The next chapter expands on the subject of iconic animals as wildlife tourism product by focussing on the impacts of the animals on visitor numbers. It commences with a brief outline of what visitors want from a nature-based product, their specific travel motivations, and the conditions favouring wildlife tourism in terms of the selected SANParks by specifying their unique product offering. Chapter three provides clarification on the importance of iconic animals for the tourism industry and specifically for SANParks.

CHAPTER 3: IMPACTS OF ICONIC ANIMALS AS WILDLIFE TOURISM PRODUCT

3.1 INTRODUCTION

The previous chapter covered the background of the wildlife tourism industry, broadening the understanding of wildlife tourism focusing specifically on the different types, the wildlife tourism product and experience, how wildlife watching integrates into tourism in general, and on the demand for wildlife tourism. Chapter three commences with an outline of the various impacts of iconic animals. The chapter begins with a discussion of how visitor numbers are impacted by the presence of iconic animals by giving an overview of what visitors want from a nature-based tourism product, the specific travel motivations, and conditions favouring wildlife tourism. It then briefly discusses the product offering of the three selected SANParks and the desirability of iconic animals in these parks. Finally the chapter focuses on the concept of introduction and reintroduction. The importance is described by providing an explanation of the terms, an overview of the reasons why introduction and/or reintroduction takes place, and a brief discussion of the costs and benefits.

3.2 THE IMPACT OF ICONIC ANIMAL PRESENCE ON VISITOR NUMBERS

In order to assess the impact of the presence of iconic animals on visitor numbers, it is important; to determine what past, current and future visitors want from a nature based tourism product in the selected SANParks; to ascertain how closely the current offerings of the selected parks match visitors' nature based product desires; and, to determine if the presence of iconic animals is the main reason for visitation. Another consideration is to assess the tourists' willingness to pay for the presence of iconic animals in the selected SANParks.

3.2.1   What visitors want from a nature-based tourism product

According to much of the literature on the subject of visitors' desires in terms of iconic mammals, it becomes apparent that the perception is that visitors are drawn to a few charismatic mega fauna species, also known as the "Big 5" and are apparently less interested in the biodiversity of a region (Kerley *et al.,* 2003). However, data representative of visitor numbers increasing due to the presence of iconic mammals are not always conclusive and may not represent any connection between the two. An example of this is the unexpected drop in visitor numbers to Karoo National Park after the reintroduction of lions to the reserve in 2000 (SANParks, 2012).

There are different ways to measure what tourists want. In most of the available literature on the subject of what visitors' desire, a preconceived idea of various concepts of desires was tested. For example, in the study by Kerley *et al.* (2003) they tested the tourist's perceptions of biodiversity on a sliding scale and how it relates to the visitor's desire and wants. However, in the study conducted by Boshoff *et al.* (2007), respondents were asked to rank 5 different elements of the nature-based experience, namely: "to see the animals", "to see the vegetation", "to see the scenery", "to enjoy the climate" or "to enjoy the peace and quiet".

Even though this study covers the influence of iconic mammals as an attraction, they do not exist on their own in the nature-based experience, and other factors need to be taken into account. In order to accurately determine the influence of iconic animals, the main travel motivations of tourists to national parks must be considered.

3.2.2   Travel motivations of tourists to national parks

Travel motivations can be considered as the internal factors that push a tourist to travel outside of his/her everyday environment (Kim, Lee & Klenosky, 2003). According to Kruger and Saayman (2010:93), different attractions and destinations feed different travel motives and Leberman and Holland (2005:29) state that the behaviour of tourists is influenced by a small number of factors, and a person can be motivated by more than one motive at a time. A decision to visit a destination (a national park) is a direct action which is triggered

by the desire to satisfy needs. Kruger and Saayman (2010:94) argue that the relationship between travel needs, motives and the decision to visit a national park is complex as visitors may have several different needs to satisfy through a single visit to a national park which links to the relative importance of iconic animals in relation to other attractions. Assessing visitors' main needs and which motivational factors lead to the preference of a particular park can provide a profile of the visitors.

Previous research conducted by Crompton (1979:408-424), Dann (1977:184-194), Fodness (1994:555), and Pearce and Caltabiano (1983:16-20) on tourist motivation indicate that motivations should be based on the two dimensions of push and pull factors. The idea behind this two-dimensional approach is that people travel because they are pushed by their own internal forces and pulled by the external forces of the destination attributes (Cha, McCleary & Uysal, 1995:33-39). Push factors are internal drivers that energise an individual to participate in touristic behaviours which 'push' the tourists to travel outside their everyday environment. Push factors are origin-related and refer to the intangible intrinsic desires of a traveller like 'escaping from daily routine' social opportunities, 'prestige', and 'novelty' (Kim *et al.,* 2003). Pull factors on the other hand are the forces that drive an individual tourist to select a specific tourist destination. Pull factors can thus be described as the result of the attractiveness of the features, attributes and attractions of a particular tourist destination and includes the tangible resources like beaches, accommodation and recreational facilities and cultural and historical artefacts (Uysal & Hagan, 1993). Iso-Ahola (1982:256-262) also suggested that both approach (seeking) and avoidance (escaping) components are present in tourism motivation, in particular.

Motivations that influence tourists' travel decision include factors such as: escape, adrenalin or excitement seeking, self-enhancement, socializing, safety and comfort, family togetherness, culture exploration, education, health and fitness, facilities, events, cost and nature (Kruger & Saayman, 2010:94).

Kruger and Saayman (2010:94) argue that limited research has been done on travel motives to national parks in South Africa specifically. According to Kruger and Saayman (2010:94), some results were produced by Uysal, McDonald and Martin (1994), who

determined the travel motives of Australian tourists to US national parks and nature areas; Tao, Eagles and Smith (2004) who analysed motivations of Asian tourists travelling to Taiwan's Taroko National Park; Kerstetter, Hou and Lin (2004) who profiled Taiwanese eco-tourists using a behavioural approach; Awaritefe (2004) who researched the travel motives of tourists to Nigeria; Beh & Bruyere (2007) who analysed visitor motivation in three Kenyan national reserves; Mehmetoglu (2007) who typologized nature-based tourists by activity in Northern Norway; Pan & Ryan (2007) who identified the motivations and determinants of satisfaction of visitors to Pirongia Forest Park in New Zealand and Saayman & Saayman (2009) who determined the travel motivations and socio-demographics of visitors to the Addo Elephant National Park in South Africa.

Table 3.1 shows an analysis of the results from the respective studies mentioned above.

Table 3.1:   Analysis of research on travel motives to national parks/nature areas

Travel motive	Uysal et al. (1994)	Tao et al. (2004)	Kerstetter et al. (2004)	Awaritefe (2004)[a]	Bey & Bruyere (2007)	Metmetoglu (2007)[b]	Pan & Ryan (2007)	Saayman & Saayman (2009)
Relaxation (2)	X						X	
Novelty (2)	X					X		
Escape (3)	X				X			X
Prestige (1)	X							
Education/Learning about nature (6)		X	X	X	X	X	X	
Participating in recreation activities/Recreation or leisure pursuits (4)		X		X		X		X
Adventure (2)			X		X			
Holistic (1)			X					
Self actualization (4)				X	X	X	X	
Culture (2)				X	X			
Nature (3)					X	X		X
Game viewing (1)					X			
Mundane everyday (1)						X		
Social contact / Enhancement of kinship relations (4)	X					X	X	X
Attractions (1)								X
Photography (1)								X

Source: Kruger and Saayman (2010:95).

Conclusions can be drawn from these studies. Firstly, comparing the studies conducted on visitors to national parks/nature areas, reoccurring motives can be identified. The most consistent motives across the board were: (1) education/learning about nature, (2) self-actualization, (3) participating in recreation activities and, (4) social contact/ enhancement of kinship. Therefore these appear to be the most common motives for travelling to a national park or nature area.

Secondly, escape, relaxation and nature were less frequently considered as a motive for travelling to a national park/nature area in these studies. However, in the study by Saayman and Saayman (2009) escape and relaxation were regarded as the most important motives for travel in general.

Thirdly, the remaining motives for travel were spread across the studies. The results emphasize the fact that different visitors to different parks have quite different motives (Pan & Ryan 2007). This could be because of (1) what these parks offer, (2) where they are located, (3) the type of market and (4), the type of activities, to name but a few.

The lack of research done at national parks in general and specifically in South Africa, as well as the fact that different parks revealed different results presents a foundation for further studies in this regard and particularly in respect of the relative importance of the presence of iconic animals in national parks in South Africa as the main attraction. The proposed study should produce greater clarity regarding travel motives to the three different SANParks selected for the study.

3.2.3   Conditions favouring wildlife tourism

In an increasing competitive global market place, the necessity for destinations and tourism products (tourism activities) to create a unique identity has become a critical factor in distinguishing them from other competing product owners (Van der Merwe & Saayman, 2014:1). Wildlife tourism operations need to comply with some nature-based criteria to be considered successful from a tourist's perspective. Not only do tourists have different motives for visiting parks, for the experience to be regarded as successful, according to

Reynolds and Braithwaite (2001:34) the species and the habitat should display most of the following characteristics:

1. Species

    The species should be predictable in activity or location, approachable, readily viewable in open habitats and have certain daytime activity patterns. It should be tolerant to human intrusion (for some time of the year) and possess elements of rarity or local super abundance.

2. Habitats

    Habitats might also be considered in the same way. The most desirable habitats are those which support a number of observable and interesting species. These habitats should be open and allow good visibility of animals and have cover which obscures the observers' approach from animals. It should also have features which concentrate animal activity at times (e.g. waterholes) and allow the protection and mobility offered by transport such as vehicles or boats

With regards to the species of the iconic animals of South Africa that will be possibly introduced or re-introduced into the selected SANParks, most of them display these specific characteristics. These animals are usually relatively tolerant towards people in their vehicles making them approachable and readily viewable in open habitats. Iconic animals are also considered to possess elements of rarity or local super abundance and can be viewed during the day even if some of them have a nocturnal activity pattern.

The parks that will possibly host these animals, namely Addo Elephant, Karoo, and Mountain Zebra National Park, support a number of observable and interesting species already. These species can be easily viewed as most areas of the parks are accessible through roads and are enhanced by various features like waterholes and hides where the animals are more likely to be seen because of the higher concentration.

Taking into consideration the species of the iconic animals of South Africa that will be possibly introduced, and the selected SANParks for the proposed study, it shows that they display most of the characteristics within the first and second criteria – thus proving favourable conditions for wildlife tourism and possible introductions of iconic animals.

3.2.4   Different type of habitats / nature tourism environments

Wildlife tourism activities, and particular ecotourism related activities, involve visits to protected areas. Generally, a country's prime areas of natural and cultural interest have been assigned protected area status at national and sometimes also international level. The International Union of Conservation of Nature (IUCN) defines a protected area as an area dedicated primarily to the protection and enjoyment of the natural or cultural heritage, to maintenance of the biodiversity, and/or to maintenance of ecological life-support services (ICUN/SSC, 2012). The creation of such an area is now the most universally adopted means of conserving a natural ecosystem and/or relevant cultural heritage for a broad range of human values.

Traditionally, national parks have been the most common and well-known type of protected area. But national parks can be complemented by other categories of protected areas covering a range of management objectives and levels of use and manipulation. Such a range of options can increase the level of protection for strictly protected categories by in effect transferring human pressures to those areas which can sustain heavier use. This means, therefore, that the creation of a protected area system should be seen as an important element of comprehensive land use planning to be undertaken systematically and balancing such divergent factors as protection of endangered species, watershed conservation, provision of recreational opportunities, and generation of tourism income.

Table 3.2 lists some categories of protected areas and their description to get an overview of all the different possible nature tourism destinations.

Table 3.2: Categories of protected areas

National park	A relatively large area for the conservation of landscapes and native flora and fauna; some sites within the park are set aside for public education and recreation; visitor facilities are usually provided
Nature Reserve	An area of special scientific interest; established mainly for biodiversity conservation; only few have visitor facilities
Regional Park	An area with open space, providing recreational and cultural opportunities to urban residents; usually near a large population centre and as such the natural environments have already been altered since European colonization
Private game reserves	Privately managed area with the primary means of generating business and increasing ecotourism attractions
Transfrontier park/conservation area	Transfrontier conservation areas are defined as relatively large areas, straddling frontiers between two or more countries and cover large-scale natural systems encompassing one or more protected areas. It involves unique levels of international co-operation between participating countries, relating to issues of opening boundaries or borders within each region.
State Recreation Area	An area with important natural environments; set aside mainly for outdoor recreation
Reserve	A crown reserve set aside for long-term environmental conservation; could be explored for mining
Marine Park	An area consisting of marine waters and lands set aside for biodiversity conservation; may be zoned for multiple-uses for varying levels of protection; tourist related activities are permitted in accordance with the approved zoning plan
Wilderness Area	A large and remote area set aside for biodiversity conservation; usually located within the boundaries of some national parks or reserves. Under the Wilderness Act 1987, wilderness should show little or no human alterations
Historic Site	A site of national cultural importance, including buildings, objects, monuments and landscapes; generally open to visitors
Ramsar Wetland	An internationally recognised wetland site under the Ramsar Convention
World Heritage Site	A globally recognised area for its important examples of natural and cultural heritage in the world, under the World Heritage Convention
World Biosphere Reserve	An internationally recognised area for its characteristic biological features and the way the area is used by people; designated by UNESCO-MAB

Source: Sinha (2001:6)

The prime areas for nature-based tourism, including ecotourism, are evidently those that are legally protected, since they offer the best guarantee for maintaining their attractions in the long term. The most commonly used category for tourism purposes around the world is the national park.

3.2.5 Product offerings of Addo Elephant, Karoo and Mountain Zebra National Park

As stated previously the satisfaction people receive from an area can be indirectly measured through the stimuli, as well as the experiences they receive from such an area, when they come into contact with a set of natural characteristics that create the identity and character of a national park or protected area (Arabatzis & Grigoroudis, 2010). The natural characteristics of SANParks include the fauna and flora of the regions, thus it can be assumed that the iconic animals of an area may add greatly to the attraction of an area. The overall tourism experience is not only influenced by the natural characteristics of the parks but also by the auxillary products and other attractions. The following section looks at the three selected SANParks, located in the Cape region, in more detail to get a better understanding of the various influencing factors.

Figure 3.1: Location of the three selected SANParks

Source: Google Maps (2015)

3.2.5.1 _Addo Elephant National Park_

Now the third largest national park in South Africa, Addo Elephant National Park has expanded to conserve a wide diversity of biodiversity, landscapes, fauna and flora. It stretches from the semi-arid Karoo area in the north around Darlington Dam, over the rugged Zuurberg Mountains, through the Sundays River valley and south to the coast

between Sundays River mouth and Bushman's river mouth and receives more than 120 000 visitors a year.

Figure 3.2: Map of Addo Elephant National Park
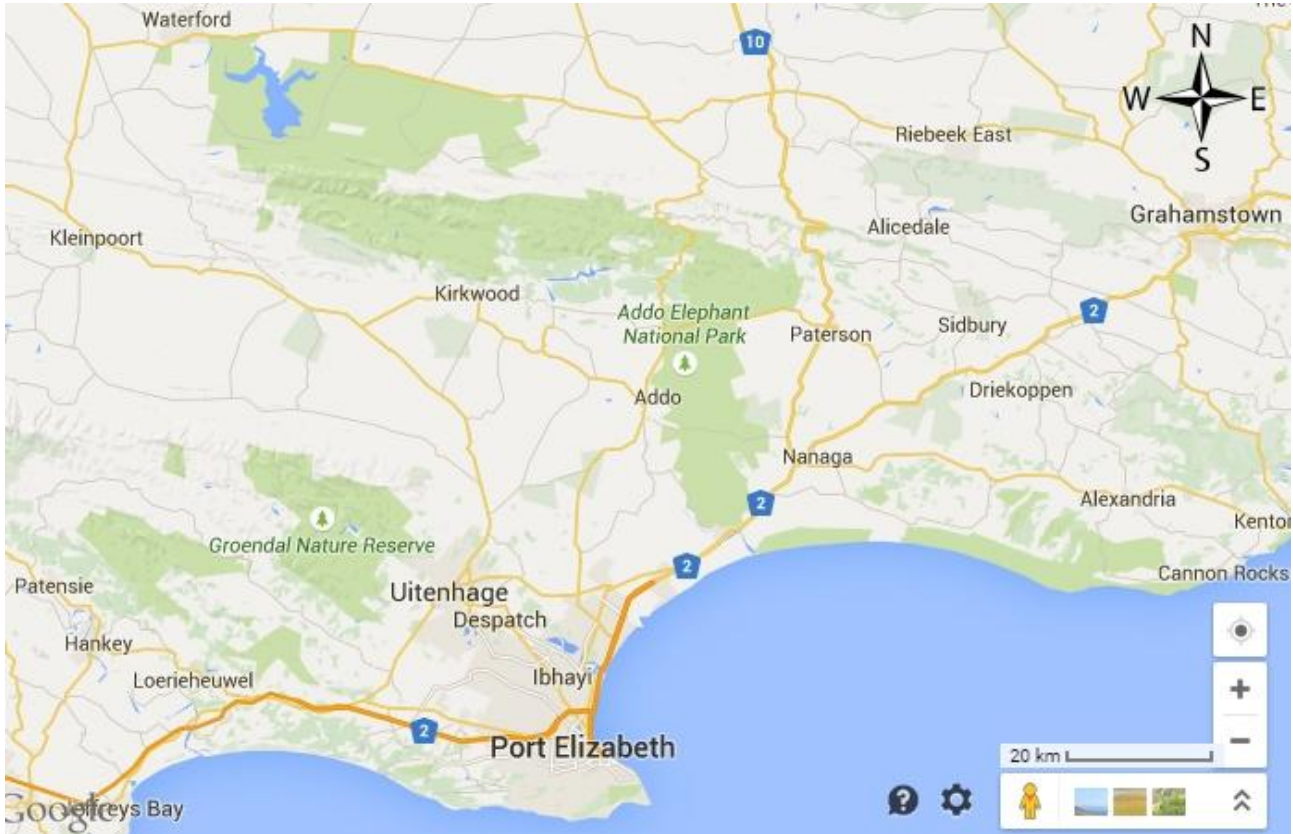
The Proclamation of Addo Elephant National Park, and what was later to be called the Greater Addo Elephant National Park, came in 1931, and was done primarily to protect the remaining elephants that had been plundering farmers crops in the Eastern Cape. In 1954 the erection of an elephant-proof fence (and predator proof fence) was completed and this gave the now only eleven remaining elephants a place of safety. By 2007 the park had grown to 356 000 ha (236 000 ha terrestrial & 120 000 ha marine area) and housed over 450 elephants (Saayman, Oberholzer & Kruger, 2009). Today this finely tuned ecosystem is sanctuary to over 550 elephants, lions, buffalo, black rhino, spotted hyena, leopard, a variety of antelope and zebra species, as well as the unique Addo flightless dung beetle, found almost exclusively in Addo Elephant National Park. The park also includes a marine reserve that includes islands that are home to the world's largest breeding populations of Cape gannets and second largest breeding population of African penguins.

In 2003 the Park reintroduced lions to the region, and stated that this was to bring balance to the ecology and was in line with SANParks mission to restore animals to regions where they had previously existed. This reintroduction also completed the "Big 5" species to be present in the park. The number of visitors steadily increased after the lion introduction up until the last date of measurement on 31 March 2011, but after that the number of visitors had dropped by nearly 10 000 as compared to the previous 12 months (SANParks, 2012). The exact reasoning behind this drop in visitors numbers is not fully understood, but is believed to be mostly due to the global economic recession.

Addo Elephant National Park offers a range of accommodation types in various camps spread out over the park. The 'Addo Rest Camp' is the main rest camp which is considered very popular. The 'Spekboom Tented Camp' is located in the fenced area of Spekboom Hide in the Park's Main Game Area whereas 'Matyholweni', which means "in the bush" in Xhosa, is located near the coastal town of Colchester. 'Narina' is a bush camp at the foot of the Zuurberg Mountains and on the banks of the Wit River and 'Kabouga' is surrounded by rugged mountains and a densely fragrant vegetation. 'Woody Cape - the Langebos huts' are available to hikers on the two-day Alexandria Hiking Trail, as well as those simply wanting an overnight stay in the forest and the 'Luxury Lodges' are concession lodges and suites (Golden Kudus) for the more elite.

At these camps various facilites are available to the vistors including a lookout platform and an underground hide providing views over a waterhole which is floodlit at night, a swimming pool, picnic and braai areas, an a-la-carte resturant, a shop selling curios, snacks, and basic supplies, a fuel station and other amenities like credit card facilites and an FNB ATM.

The activities available at Addo Elephant National Park include self-drive game viewing, hop-on guides to accompany you on your drive, 4x4 eco-trails, guided game drives, horse trails, hiking trails and guided walks, marine eco tours, bird hides as well as picnic facilities.

3.2.5.2   _Karoo National Park_

The 72 701ha Karoo National Park was proclaimed in 1979, and is 10km from Beaufort west in the Greater Karoo (Kruger, van Loggerenberg & Saayman, 2010). The Great Karoo is a vast and unforgiving landscape of which the Karoo National Park is but a small portion.

Figure 3.3: Map of Karoo National Park

<u>Source</u>: Google Maps (2015)

Being the largest ecosystem in South Africa, the Karoo is home to a fascinating diversity of life, all having adapted to survive in these harsh conditions (SANParks, 2014). Karoo National Park is dominated by the lofty Nuweveld Mountains and rolling plains, where many species that originally occurred here now occupy their former ranges.

The Karoo National Park has a wide variety of endemic wildlife. Many species have been relocated to their former ranges - such as brown hyena, lion and Cape mountain zebra. Over 20 breeding pairs of black eagle find sanctuary within the park. There is also a wide diversity of succulent plants and small reptiles.

In 2010, lions were reintroduced to the region after it had been discovered that there may have previously been an existent population over 170 years ago. This iconic mammal (lion) was added to another, the already present Black Rhinoceros, in the park. Thus, in terms of offerings in iconic mammals, the Karoo National Park only offers two such species (Western Cape Tourism, 2012).

Having such a Park in the three parks that are going to be analysed will add valuable data to the findings on this study as the reintroduction of lions is fairly recent and the comparison of visitor numbers can give a good illustration of the desirability of iconic mammals in protected areas. There was a near 10 percent drop in the number of visitors (SANParks, 2012) after the year in which the lions were introduced, and this may be evidence of the park now being less desirable to visitors. However, due to macro-economic factors this cannot be confirmed until further data in this study is gathered.

According to news24 (2013), two male lions from the Kgalagadi Transfrontier National Park were released into the Karoo National Park on 7 February 2013, bringing the total number of feline predators now in the Park to nine. The introduction of predators into Karoo National Park forms part of attempts to restore the ecological processes in the Park, specifically to re-establish the process of predation (news24, 2013). This will help to control herbivore numbers naturally and decrease the need for capturing and culling, which is in line with SANParks' 'minimum interference' philosophy (SANParks, 2012).

Karoo National Park offers a variety of accommodation types including eight Cape Dutch style family units, nineteen Cape Dutch style units, ten Cape Dutch style cottages and 24 award-winning camping and caravan sites amidst a veritable green oasis with communal ablutions (shower and baths) and kitchen facilities with stove plates and scullery.

With regards to the facilities the Karoo National Park has a fully licensed a la carte restaurant which is open for breakfast and dinner, a shop where curios and basic commodities may be purchased, an interpretation centre, a washing machine and tumble drier in the camping site, picnic, braai and ablution facilities for day visitors, a swimming pool, and a fully equipped conference centre with catering services.

The activities available at Karoo National Park are self-drive game viewing and guided game drives, 4x4 eco-trails, guided walks, the fossil hiking trail, bird hides and picnic facilities.

3.2.5.3   *Mountain Zebra National Park*

Situated near Cradock in the malaria-free Eastern Cape, the Mountain Zebra national park was originally proclaimed in 1937 to save the dwindling Cape mountain zebra population (SANParks, 2013).

Figure 3.4: Map of Mountain Zebra National Park

Source: Google Maps (2015)

According to SANParks (2013), the park is now over 28 000 hectares, which boasts a conservation success story, protecting over 700 zebra as well as wildlife such as endangered black rhino and cheetah.

The Mountain Zebra National Park has a wide variety of endemic wildlife. Many species have been relocated to their former ranges - such as black rhino, the aardwolf, cheetah, Cape buffalo, as well as Cape mountain zebra (SANParks, 2013). The park also holds an

abundance of special birds species like the national bird of South Africa, the blue crane, and many other species including the Denham's bustard and 20 breeding pairs of black eagle that find sanctuary within the park.

According to news24 (2013), Mountain Zebra National Park has their own lion population as three lions were released at the end of April 2013. Their introduction makes a lot of sense from a biodiversity point of view, as Cape lions historically occurred in this region (news24, 2013). Their prey consists mainly of larger herbivores, which currently have no natural predators, as the cheetah and hyena in the park typically opt for smaller antelope.

Mountain Zebra National Park has various accommodation types including Doornhoek Guest House, four-bed family cottages, mountain huts, as well as caravan and camp sites with communal ablution facilities. Other facilities include a fully licensed a la carte restaurant, a shop where curios and basic commodities may be purchased, two picnic sites with braai facilities, a swimming pool, petrol and diesel station, conference centre with catering, and facilities for small wedding receptions.

The activities available at Mountain Zebra National Park include self-drive game viewing and guided game drives, 4x4 eco-trails, activities on foot / hiking trails, educational programmes, bird hides and picnic facilities.

3.2.6   The desirability of iconic animals in the selected national parks

There are various views on how much the presence of iconic animals in protected areas appeals to visitors. Boshoff *et al.* (2007) found in their study of visitors to Addo Elephant National Park, that when visitors were asked, "how important the "Big 5" were to them", that a surprising number stated that they were "not important" or only "fairly important". These findings are contradictory to those of Goodwin and Leader-Williams (2000:257-275) in which they state that visitors desires are distorted towards charismatic mega-fauna animals. Various studies have been conducted in this regard, indicating that visitors have distinct preferences for viewing wildlife, in particular flagship species (Goodwin & Leader-Williams, 2000; Matt & Aumiller, 2002).

Results from Boshoff *et al.* (2007) indicate overwhelmingly that the primary reason for people visiting Addo Elephant National Park (AENP) was to "see the animals". It is also worth noting that people considered "peace and quiet" to be important. In their study they found that the majority of people visiting AENP listed that "seeing elephants" was one of their main reasons for visiting, even though AENP contains all of the "Big 5". However, findings by Lindsey *et al.* (2007) show that the desire for charismatic mega-fauna (iconic mammals) was higher among first time and overseas visitors, and that experienced South African visitors were more interested in the bird and plant diversity. Supplying visitors with these desired product offerings, it often results in iconic animals being introduced and/or reintroduced into parks. To gain a better understanding of this concept the following section provides a backgound of the introduction of iconic animals in general.

3.3 INTRODUCTIONS AND REINTRODUCTIONS OF ICONIC ANIMALS

Relocating animals within their range, or to parts of their former range, has become a popular tool in wildlife management, both for conservation and other purposes (Fischer & Lindenmayer, 2000:2). According to Fischer and Lindenmayer (2000:3), relocations can be defined as "any intentional movement by humans of an animal or a population of animals from one location to another". This term can be seen as a neutral overarching term describing the four different types of relocations namely: (1) introductions, (2) reintroductions, (3) translocations, and (4) supplementations. These terms are defined in the following section.

3.3.1 Definitions of key terms

Introduction is seen as the intentional movement and release of an organism outside its indigenous range or recorded distribution (IUCN/SSC, 2012:3). There are two types of introductions that are recognised:

1. Assisted colonisation

   Assisted colonisation is "the intentional movement and release of an organism outside its indigenous range to avoid extinction of populations of the focal species" (IUCN/SSC, 2012:3).

This is carried out primarily where protection from current or likely future threats in current range is deemed less feasible than at alternative sites. The term also includes a wide spectrum of operations, from those involving the movement of organisms into areas that are both far from current range and separated by non-habitat areas, to those involving small range extensions into continuous areas.

2. Ecological replacement

Ecological replacement is "the intentional movement and release of an organism outside its indigenous range to perform a specific ecological function" (IUCN/SSC, 2012:3).

This is used to re-establish an ecological function lost through extinction, and will often involve the most suitable existing sub-species, or a close relative of the extinct species within the same genus.

Reintroduction is the attempt to establish a species in an area which was once part of its historical range, but from which it has been removed or become extinct (Fischer & Lindenmayer, 2000:3). Reintroduction aims to re-establish a viable population of the focal species and is considered to be the intentional movement and release of an organism inside its indigenous range from which it has disappeared.

Translocations are considered to be the "deliberate and mediated movement of wild individuals or populations from one part of their range to another" (Fischer & Lindenmayer, 2000:3). Translocation is therefore the overarching term. Translocations may move living organisms from the wild or from captive origins (IUCN/SSC, 2012:2). Translocations can be accidental or intentional. Intentional translocations can address a variety of motivations, including for reducing population size, for welfare, political, commercial or recreational interests, or for conservation objectives.

Supplementation occurs when individuals are added to an existing population of species already present in their range (IUCN/SSC, 2012:2). Supplementation aims to enhance population viability, for instance by increasing population size, by increasing genetic diversity, or by increasing the representation of specific demographic groups or stages.

The selected SANParks for the proposed study namely Addo, Karoo, and Mountain Zebra National Park either already have some of the iconic animals present in the park, had some of the iconic animals in the park but they disappeared, or looking to introduce iconic animals for the first time as no iconic animals are present at the moment. As for these reasons the proposed study focuses only on the introductions and/or reintroduction of iconic animals which will be discussed in more detail in the sections below.

3.3.2   Reasons for introduction and/or reintroductions

According to Hayward, Adendorff, O'Brien, Sholto-Douglas, Bissett, Moolman, Bean, Fogarty, Howarth, Slater and Kerley (2007:1), the expansion of the conservation estate in South Africa has seen increasing reintroductions in order to restore ecological integrity, conserve threatened species and to maximise tourism.

The aims need to be clearly defined as these are essential for successful introductions and/or reintroductions of iconic animals. The majority of reintroductions are driven by the financial benefit that arises from ecotourism (Hayward *et* al., 2007:4). The desire to provide tourists with a unique experience in the face of strong competition from other reserves has even led to captive-bred species with the purpose of being released into the wild. This statement provides us with an indication that the introduction and/reintroduction of iconic animals into the selected SANParks is a favourable option taking into consideration the tourism related aspect.

The secondary aims for introductions and/or reintroductions are considered as the ecological integrity and to conserve threatened species. Ecological integrity is restored and arises when a specific site or park has an intact fauna (Hayward *et al*., 2007:4). This can also be achieved through introductions and/or reintroductions of iconic animals into the selected SANParks. As there are various reasons for introductions or reintroduction the source of the animals (where the animals come from) is also an important factor to take into consideration as animals have different behaviours resulting from different environments. These considerations will be looked at in the following section.

3.3.3   Sources of iconic animals for introduction and/or reintroduction

Wild and captive populations are the two main sources of animals for introductions and or reintroductions, and the economic considerations are the ultimate determinants of which source is preferred (Hayward *et al.,* 2007:4). The availability of the animals, their disease status and the genetic compatibility are considered other determinants that influence the choice of the source of the animals.

According to Wemmer and Sunquist (1988), captive bred stock is a logical source of release animals if, a) the captive population is secure, b) the species is easily bred in sufficient numbers in captivity, and c) the animals are able to acclimatise well to release. If there is no source of wild stock which generates an annual surplus, then also, captive stock is the only option. If captive bred animals do not generate an annual surplus, or adjust to the wild with difficulty, or are large and costly to transport, then wild populations, if they exist, deserve examination as a possible source of animals for reintroduction (Wemmer & Sunquist, 1988).

3.3.4   The impact of iconic animal introductions on the environment

While the analysis of the environmental impact of introducing iconic animals to reserves falls outside of the scope of the study, and this study is built on the premise that the selected Parks are environmentally suitable for such introductions, it is still necessary to provide some foundation in this regard.

Under most circumstances, the reasoning behind the reintroduction of animals is to restore the region to its previous ecological state. However, with the ever increasing numbers of tourists to South African National Parks and various studies showing that tourists want to experience iconic animals, these reintroductions have the added benefits of increasing visitor numbers and revenue to Parks.

For the purposes of this study, iconic animals can be broken down into 2 main groups, namely, predators and mega-herbivores. The reason for this is that the two groups have

fairly different impacts on the environment, and thus, it will be more useful to explain these impacts separately.

3.3.5   The impacts of predator introductions on and in reserves

Hayward and Somers (2009:xiiv) note that one of the main reasons for the reintroduction of predators is that the public appear to like them. This idea is strengthened by the results of Lindsey *et al.* (2007:11), in which lion (*Panthera leo*) leopard (*Panthera pardus*) and cheetah (*Acinonyx jabartus*) are the top three animal species that park visitors to AENP would like to see.

Large predator's extensive ecological requirements and the potential for conflict with humans mean they are among the first species to disappear from areas affected by human activity. Concurrently, they often represent a symbol of wilderness to the general public. Despite a high profile with the public and the high costs and logistical complexity of such projects, many restoration efforts for large carnivores have received little post-release monitoring and, where monitoring has occurred, success rates of restorations have usually been found to be low (Hunter, Pretorius, Carlisle, Rickelton, Walker, Slotow & Skinner, 2007).

By their very nature, iconic predators are relatively rare in natural ecosystems (Hayward & Somers, 2009:1). Thus, even small fluctuations in the numbers in these animals can have large impacts on their ecosystem. Hayward and Somers (2009:270) summarise the role of social behaviour in carnivore reintroductions as follows:

> "Reintroductions are becoming increasingly important in conservation management, particularly for large carnivores. Despite an increase in our understanding of carnivore social behaviour, wildlife managers often disregard this knowledge when reintroducing animals – largely owing to behavioural ecology and reintroduction biology rarely being unified in the literature or in graduate conservation management programmes."

One of the major problems that exist with the reintroduction of large predators (such as Lion, Leopard and Cheetah) is the impact on prey animals they may have, For example, wildlife managers at South Africa's Madjuma Game reserve, believed that the relatively high density of Impala (Aepyceros melampus) would be sufficient to sustain the population of reintroduced Lion (*Panthera leo*) without heavily impacting on other species. However, within 2 years, the Blue Wildebeest (*Connochaetes taurinus*) population declined drastically, leading to the removal of the lions. The highly threatened Roan antelope (*Hippotragus equines*) almost declined to extinction in the Kruger National Park after the introduction of man-made waterholes, which opened up new habitats' for zebra (*Equus burchelli*) and wildebeest, which in turn lead the lions into these areas, and thereby driving the decline of Roan antelope (Hayward, O'Brien, Hofmeyr & Kerley, 2007:1567).

In response to a question posed to visitors on the views of the reintroduction of large carnivores to AENP, respondents strongly considered that this would be good for the ecology of the park, howerver, about 20% were "Not sure". This shows one of either two possiblities, firstly that there is an opportunity for park management to educate visitors as to the goals and benefits of these introductions, or alternatively, that this minority of visitors know of the possible negative ramifications of large predator reintroductions into enclosed protected areas.

Kerley *et al.* (2003:14), suggest that tourist preferences for charismatic mega-fauna have led to an under appreciation of biodiversity. This opinion is shared by Goodwin and Leader-Williams (2000) in which they state that the "dependence of tourism operations on charismatic mega-fauna may distort management priorities to the detriment of wider biodiversity conservation".

This leads to what became evident from the study by Hayward *et al.* (2007:1569) namely, that when there are reintroductions of iconic predators, careful consideration needs to be given to: the number of prey animals required to sustain a population of predators; the relative impacts on specific prey animal species; as well as the impact that man-made elements might pose (such as the man-made watering points in Kruger National Park). The methods of capture, transport and release also impact on the success of reintroduction (Hunter *et al.*, 2007).

3.3.6   The impact of mega-herbivore reintroductions on reserves

Mega herbivores can be described as the large herbivores, including the African elephant (*Loxodonta africana*), Black and White rhinoceroses (*Ceratotherium simum* & *Diceros bicornis*), Cape buffalo (*Syncerus caffer)* and the hippopotamus (*hippopotamus amphibius*).

Bakker, Richie, Olff, Milchunas and Knops (2006:782) explain that large herbivores can have both positive and negative impacts on the environment, and the number and size of herbivores play an important role with regards to the impact on the vegetation of a region. Too many large herbivores can significantly impact the vegetation biomass of an area negatively. The contrary is also a problem, if certain types of vegetation are minimally grazed or browsed, the vegetation can be adversely affected through becoming moribund or overgrown.

Certain species, such as the African elephant, have complex social and behavioural systems. Without proper management and reintroduction techniques, elephants can over populate protected areas and in other instances, due to social behaviour become aggressive towards humans (Druce, Pretorius, Druce & Slowtow, 2006:134). Elephants have long life expectancy and the killing or culling of elephants in South Africa is highly controversial and thus has virtually been abandoned as a form of population control after 1994 (van Aarde, Whyte & Pimm, 1999:287).

Other factors that need to be taken into consideration when reintroducing iconic mammals species are the financial costs, including operational and maintenance costs. Examples of such cost can be predator-proof fencing, (which is in excess of R50 000 per km of fence) the relocation and veterinary costs as well as the costs of the potential likelihood of recapturing hazardous escaped animals. To be able to investigate the economic viability of the three selected SANParks, it is important to consider economic implications that could have an impact on the viability of the parks. The next section provides a discussion on the broader principles relating to the economic implications regarding the management of wildlife tourisim which includes the introduction or reintroduction of iconic animals and the maintenance of them. This study does not investigate fully the economic implications of introductions and/or reintroductions of iconic animals, but focuses on the tourists

willingness to pay for the presence of iconic animals in order to establish if a park can expect an increase in tourist revenue in relation to the presence of iconic animals.

Buying or sourcing iconic animals for introduction or reintroduction is considered a costly exercise and has an impact on the economy of the park. These economic implications need to be considered in more detail by looking at the costs and benefits of introductions and/or reintroductions of iconic animals.

3.3.7 The costs and benefits of iconic animal introductions and/or reintroductions

There are various costs involved in the introductions and/or reintroduction of iconic animals. Some of the costs are considered as direct costs whereas others are considered indirect. The costs always vary amongst countries, parks, specific locations, availability of animals, type of animals as well as the number of animals being introduced or re-introduced.

According to Fischer and Lindenmayer (2000:5), there are some costs that are considered generic and need to be considered for every introduction and/or reintroduction. The list below briefly describes the costs that need to be considered as stated by Hayward *et al.* (2007:5-6)

- Purchasing iconic animals for introductions or reintroductions is costly.
- Predators can reduce the total worth value of wildlife in a park as they pray on wildlife that also cost money to purchase them.
- Boma construction for the animals to acclimatise in the new environment.
- Constructing and maintaining the necessary infrastructure that is required to house large animals (iconic animals).
- Fencing infrastructure and the constant monitoring and checking of the fences.
- Veterinary assistance.
- Monitoring programmes including extra staff for observation of the introduced and/or re-introduced animals.

Despite these costs, there can still be some financial benefit deriving from introductions and/or reintroductions of iconic animals. The presence of these animals can result in an increase in turnover per annum (Hayward *et al.,* 2007:6). This increase could result from increased visitation to the park as visitors want to view the iconic animals thus increasing their expenditure and increasing the occupancy. One of the research questions in this study focuses on the visitor willingness to pay for the presence of iconic animals which should provide some indication of profitability. While this study does not empirically determine the economic viability of introductions and reintroductions, the potential for increased tourism revenue should be viewed against the broader economic aspects regarding wildlife tourism.

3.4   CONCLUSION

This chapter presented literature of iconic animals and the impacts they have on visitor numbers and the type of visitor, by discussing what visitors want from a nature-based tourism product, the specific travel motivations, and conditions favouring wildlife tourism. These aspects were then matched to the product offerings of the three selected SANParks indicating the desirability of iconic animals in these parks. The chapter was concluded with an explanation of the concept, introduction and reintroduction, which provided an overview of the reasons why iconic animals are introduced, where the animals are sourced from, and a brief discussion of the costs and benefits. The next chapter will expand on the aspect of costs by focussing on the economic considerations of wildlife tourism and specifically within the context of introducing and/or reintroducing iconic animals.

CHAPTER 4: ECONOMIC CONSIDERATIONS OF WILDLIFE TOURISM

4.1 INTRODUCTION

The previous chapter discussed the concept of iconic animal introductions and their impact on visitor numbers and types of visitors. It also briefly discussed the environmental impacts and concluded with a discussion on costs and benefits of iconic animal introduction. It is well established that tourism contributes significantly to regional economies and that the contributions of nature-based tourism are being increasingly studied and measured (Catlin, Hughes, Jones, Jones & Campbell, 2012:93). The valuation of wildlife for tourism purposes has the potential to demonstrate tangible economic benefits attributable to wildlife and thus, to present a business case for wildlife conservation.

This chapter provides a brief overview of the economic considerations of the wildlife tourism industry. It discusses the economic aspects of wildlife tourism by focusing on the general description and explanation of environmental economics and specific aspects like the total economic value and the willingness to pay. Various economic applications of wildlife tourism are addressed by considering the economic value of wildlife for satisfying human wants for tourism and other purposes, and the implications of these values for the optimal economic management of resources, including the introduction and/or reintroduction of iconic animals.

4.2 ECONOMIC ASPECTS OF WILDLIFE TOURISM

For tourism to be viable and profitable, it needs to meet the standards that are expected by the market including the way it is designed, priced and marketed, the reliability and quality of the services and experiences that are offered, and its general attractiveness in relation to competing products that are available at other sites. According to Tisdell and Wilson (2001:233), many tourists find the presence of wildlife a significant reason for visiting a country or region, or a reason for extending their stay. Wildlife watching is thus a valuable asset for many localities. The demand for wildlife tourism comes from a wide group of

visitors including international and domestic visitors as well as specialists and generalists (Tisdell & Wilson, 2001:234). Large numbers of people regularly pay significant amounts of money in order to view particular species of animals, and nature in general (Tapper, 2006:24). The study done by Tapper (2006:24) showed a result that estimated that 20% – 40% of all international tourists have an interest in some form of wildlife watching – ranging from enjoying casual observation of wildlife, to taking short wildlife viewing excursions that are added to a trip undertaken primarily for other purposes, to tourists who spend their entire trip on wildlife watching. Similarly, the amount of money generated from such tourism varies according to species and according to foreigners and locals, and on average specialists, spend more money than generalists (Tisdell & Wilson, 2001:238). According to Tisdell (2003:83), wildlife tourism can provide direct financial support for nature conservation as well as for local communities where it occurs.

Wildlife tourism can generate income in several ways which include payments made by the tourists, such as the entrance fees or donations for the guides, drivers and other staff who may accompany them, allocation of government revenues, as well as sales of services and products at the site (Tapper, 2006:24). Tisdell (2003:86) states that tourists also pay for accommodation and other services in order to travel to the wildlife watching sites. Tourists that visit a destination for wildlife watching are often presented with opportunities to interest them in other tourism activities, or to see and experience additional aspects such as the countries heritage and culture. Tapper (2006:24) argues that if tourists are provided with these additional opportunities for tourism, they are encouraged to stay longer and spend more money in the country.

Overall, income from wildlife watching tourism can enter a country's economy at a number of different points. A simplified model (displayed in Figure 4.1) of the monetary flows associated with tourism and protected areas, which are important centres for wildlife tourism, shows how tourist dollars enter the economy through payments made by tourists to tourism-related businesses and to the protected areas that they visit, and through taxes levied at national or local level (Tapper, 2006:25).

Figure 4.1: A simplified model of the monetary flows associated with tourism and protected areas
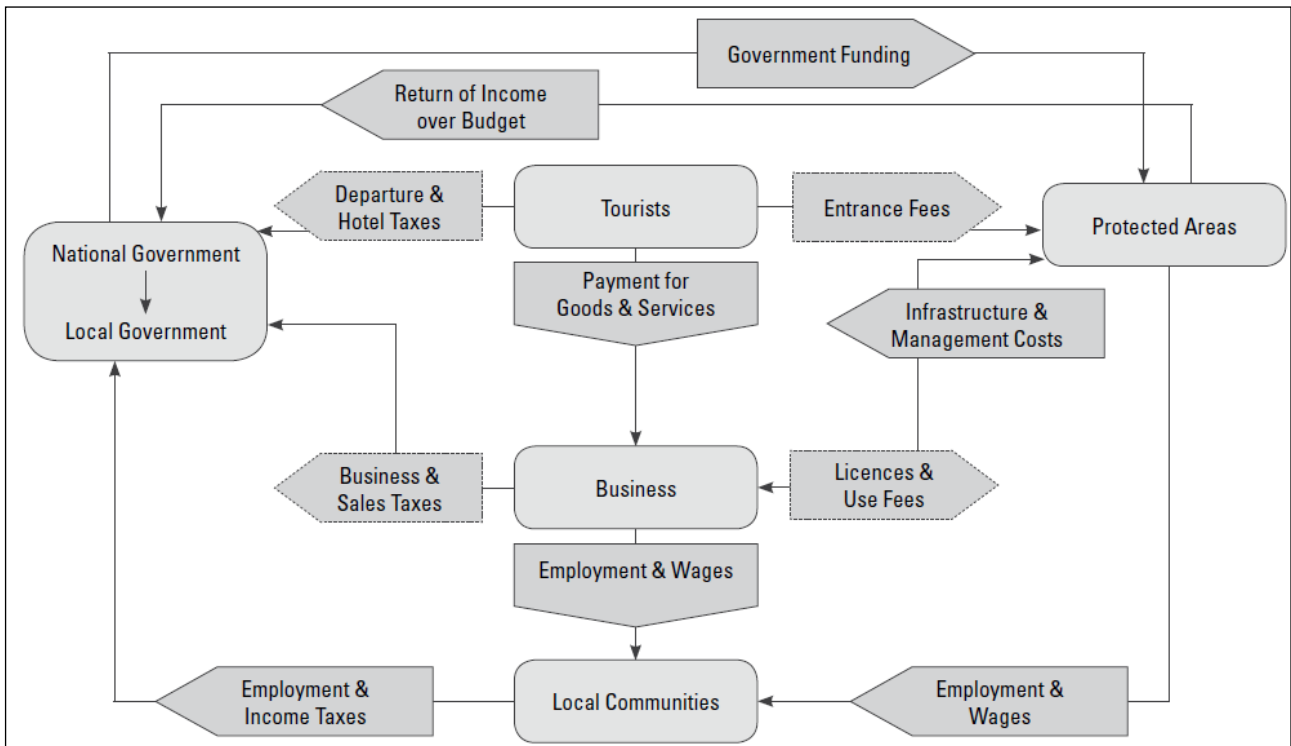
Source: Tapper (2006:25)

Successful wildlife tourism may also generate nonmonetary benefits that can include valuable political and government support for species conservation, as well as support from local communities and key stakeholders, and public awareness of the significance of wildlife in the national heritage (Tapper, 2006:40). Wildlife tourists are thus often willing to pay significantly more than current access fees for wildlife watching.

In this study one source of income is looked at namely tourists' willingness to pay for the presence of iconic animals in selected SANParks. In the next section the value of this revenue is explained within the broader system of environmental economics.

4.2.1 Environmental economics

Economists typically classify ecosystem goods and services according to how they are used. Environmental economics usually assesses natural assets, such as wildlife, within a framework of "Total Economic Value" (TEV) (Catlin *et al.,* 2012:94). TEV includes all values that relate to the asset. Figure 4.2 illustrates the main framework of TEV and its

components. The main components of TEV consists of use values and non-use values which may also be considered as being direct use values, indirect use values, and non-use values. The TEV of a resource can thus be defined as being equal to its economic use value plus its total economic non-use values (Tisdell & Wilson, 2001:235).

Figure 4.2: Total Economic Value (TEV)
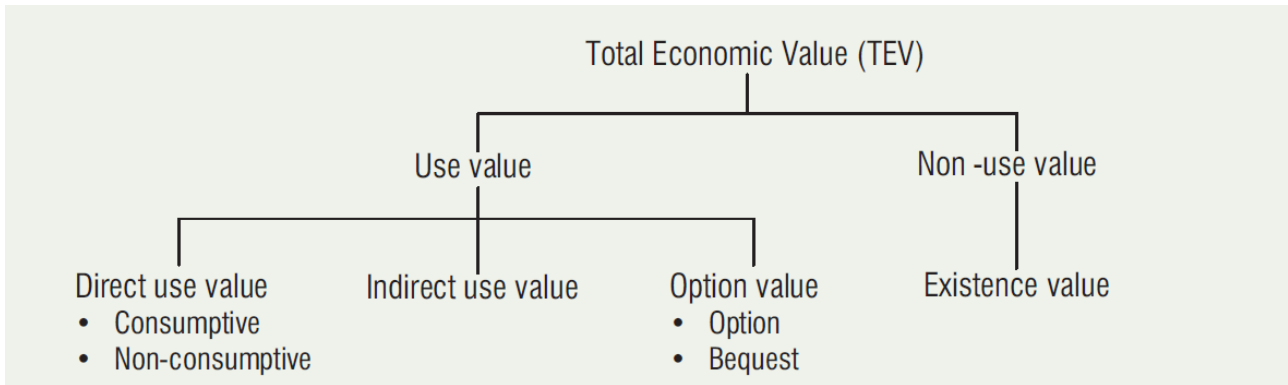
Pagiola, von Ritter and Bishop (2004:9)

According to Catlin *et al.* (2012:94), direct use values relate to the economic benefit derived directly from use of the asset which is normally obtained on-site. In the case of wildlife, direct use values accumulate either from the capture and the sale of the animal, or from people viewing the wildlife that pay for the experience. These direct use values can be differentiated as consumptive use value (capture and sale) or non-consumptive use values (tourism revenues).

Indirect use values generally relate to the human use of an asset that has been contributed to by another natural asset and is usually more intangible and obtained offside (Catlin *et al.,* 2012:94). In relation to wildlife, an indirect value could be the role that a particular species plays in maintaining an ecosystem, part of which is used by humans.

Option value is defined as the potential use benefit, opposed to present use value, of an environmental good. This value is viewed as the willingness-to-pay (WTP) for preservation of a natural resource that will be made use of at a later stage by the present generation (Suh & Harrison, 2005:7).

According to Catlin *et al.* (2012:94), non-use values refer to the value humans place on knowing that a natural asset exists, even if they never plan to see or use it. Such non-use values are often invoked in conservation discussions. Tisdell (2003:91) argues that non-use economic values include existence value, bequest value, and could also contain a philanthropic element. Tisdell (2003:91) defines these values as follow:

- Existence value = represents the amount individuals would be willing to pay to know merely that an area or species continues to exist.

- Bequest value = an economic indication of the desires of individuals to conserve a natural area or species for future generations.

- Philanthropic element = a desire to keep the resource available to others, not necessarily future generations.

According to Van Tonder, Saayman and Krugell (2013:632), within the context of nature-based tourism, the problem often arises that although the consumptive use values of wildlife can be determined, it is nearly impossible to calculate the non-consumptive use value of wildlife. The opportunity to view endangered species in their natural habitat has value, but the Rand value that tourists place on the "Big 5" is very difficult. The focus of this research is on the selected parks faunal attractions and specifically on the tourists' willingness to pay for viewing the iconic animals or "Big 5". This relates to how much, in monetary terms, a visitor values the sighting of particular species. Various studies have been conducted in this regard; however, Hay and McConnell (1979:462) stated in 1979 that "no studies have successfully estimated the net economic value of wildlife watching". Ten years later, Wagner (1989) also sounded a plea for more research on this topic to gain a better understanding of the non-consumptive value of different species. When describing the non-consumptive value of different species it is essential to note that the value is indirect and becomes more difficult to determine. It must thus be further noted that it is referred to as economic value as opposed to economic impact of viewing wildlife tourism. This is due to the fact that value essentially means all willingness to pay for use and non-use of the resources excluding all economic costs and leakages, whereas impact means the flow of expenditures through the economy resulting from the use of resources. According to Driml (2010:3), the knowledge of the economic value of an environmental area can be useful in the decision making process in evaluating the benefits and costs associated with proposals that would impact the natural environment like the introduction

or reintroduction of iconic animals. To get a better understanding of how this can be done, the next section focuses specifically on the willingness to pay for viewing wildlife species.

4.2.2   Tourists' willingness to pay for wildlife viewing tourism

Willingness to pay is "the maximum amount that a person is willing and able to pay to enjoy recreational facilities (McConnell, 1985). Lipton, Wellman, Sheifer and Weiher (1995) noted that economic value is a measure of what the maximum amount is an individual is willing to forego in other goods and services in order to obtain some good, service, or state of the world. This measure of welfare is formally expressed in a concept called willingness to pay (WTP). The valuation of wildlife, particularly the estimation of non-use and non-consumptive use values for wildlife, is an important input into various policy decisions and needs to be investigated.

The revision of the available literature on the economic valuation of wildlife, revealed three methods of assessing willingness to pay for wildlife viewing (Saayman, 2014:185). The first method is the travel cost method, which is used to estimate the economic use values associated with ecosystems or the particular animal (Zawacki, Marsinko & Bowker, 2000; King & Mazzotta, 2000). This method uses a cost benefit analysis based on three factors, namely changes in access cost, the establishment or abolition of recreational sites, and changes in the environmental quality of a particular site. It establishes visitors' willingness to pay by assessing the number of trips they make when one or more of these factors change (Zawacki *et al.*, 2000; King & Mazzotta, 2000). The basic premise of the travel cost method is that the time and travel cost expenses that people incur to visit a site represent the "price" of access to the site. Thus, peoples' willingness to pay to visit the site can be estimated based on the number of trips that they make at different travel costs.

The second method is the hedonic price method, which uses the price of goods with different measurable characteristics in order to determine the price of each item (Gundimeda, 2005; Hanley & Spash, 2003). This method is commonly used to set house prices by determining willingness to pay for each characteristic of a house.

The third method is the contingent valuation (CV) method. This method is commonly used to determine the economic value of new market environmental attributes or services (King & Mazzotta, 2000). It can apply both non-use and use values of environmental services and it generally uses a questionnaire or survey. The contingent valuation method involves directly asking people, in a survey, how much they would be willing to pay for specific environmental services. In some cases, people are asked for the amount or percentage of compensation they would be willing to accept to give up specific environmental services. It is called "contingent" valuation, because people are asked to state their willingness to pay, depending on a specific hypothetical scenario and description of the environmental service.

There are a number of factors influencing the willingness to pay with regards to viewing wildlife (Saayman, 2014:186). According to various sources, the main factors influencing willingness to pay are income, age, education, nationality, marital status, number of children, loyalty and donations (Kosz, 1996; Hadkler, Sharma, David & Muraleedharan, 1997; Tisdell & Wilson, 2001; Tsi, Nji & Mühlenberg, 2008; Aziz, Radam, & Samdin, 2010). All these studies showed that both education and income are positively related to willingness to pay, but education more strongly than income. Age showed a negative relation to willingness to pay, which implies that older respondents will probably not be willing to pay as much as the younger ones (Kosz, 1996; Tisdell & Wilson, 2001; Aziz *et al.*, 2010). Hadkler *et al.* (1997), found the opposite, namely that older respondents are willing to pay more. Marital status generally shows a positive relationship with willingness to pay, which is to say that married visitors are willing to pay more than unmarried visitors (Aziz *et al.*, 2010; Kosz, 1996), while nationality shows a negative correlation, meaning that international visitors are likely to pay more than local visitors (Hadkler *et al.*, 1997; Aziz *et al.*, 2010). In terms of profession, the higher the visitors' professional standing, the more likely they are to pay more (Hadkler *et al.*, 1997; Tisdell & Wilson, 2001; Aziz *et al.*, 2010). Loyalty is also positively related to willingness to pay (Kosz, 1996). An interesting finding from the literature is that people who make donations to conservation causes show less willingness to pay (Kosz, 1996; Hadkler *et al.*, 1997; Tisdell & Wilson, 2001).

Understanding the economic value derived from wildlife tourism and all the different variables and factors influencing the visitors willingness to pay for viewing specific animals (like the "Big 5" or iconic animals), can assist the management in determining the visitor preferences which will ultimately increase the tourism experience achieving total tourist satisfaction. Providing visitors with quality experiences satisfying their need will increase the demand for wildlife tourism ensuring sustainability.

4.3   CONCLUSION

This chapter looked at the economic considerations of wildlife tourism by focusing on the general description and explanation of environmental economics and specific aspects like the total economic value and the willingness to pay. It specifically addressed the various economic applications of wildlife tourism by considering the economic value of wildlife for satisfying human want for tourism and other purposes, and the implications of these values for the optimal economic management of resources, including the introduction and/or reintroduction of like iconic animals.

The discussion on the wildlife tourism industry, the introductions and/or reintroductions of iconic animals and their various impacts, as well as the discussion on the economic considerations has laid the foundation for the empirical research which aims to demonstrate the relative importance of iconic animals as tourist attraction in relation to other available attractions. It also aims to determine the relationship between the visitor numbers to the selected SANParks and the presence of iconic animals as well as if the type of visitor changes with iconic animal introductions. The final aim of the research is to investigate the financial considerations with regard to the visitors' willingness to pay for the presence of iconic animals in the selected SANParks namely Addo Elephant, Karoo, and Mountain Zebra National Park. The next section addresses the methodology and the research process that is followed based on the literature review and precedes the presentation of the empirical results which follows in chapter six.

CHAPTER 5: RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION

The discussion on the wildlife tourism industry including the impacts of iconic animals as wildlife tourism product and the economic considerations has laid the foundation for the empirical research which aims to measure the relative importance of iconic animals as tourist attraction by assessing the impact on visitation with the introduction or reintroduction of specific animals into selected SANParks. Therefore this section will explain the methodology used in the study in detail starting with a description of the strategy of inquiry and a detailed classification of the study's overall research design. The sampling methods and sample size are discussed in detail as well as the data collection method and processes used. This is followed by a description of the statistical methods and data analysis techniques used to analyse the collected data. Finally, the quality and rigour is discussed as well as the research ethics related to the proposed methodology.

5.2 STRATEGY OF INQUIRY AND RESEARCH DESIGN

The strategy of inquiry is known as the research methodology, research approach, research strategy or general research design and is often categorised as quantitative, qualitative or mixed (Cooper & Schindler, 2006:244). According to Zikmund (2003:55) a research design refers to the master plan that is needed for the collection of information that acts as a framework with methods and procedures to guide the research conducted. The research strategy chosen for this study was mostly guided by the research questions and objectives, the purpose of the research, the extent of time and resources available, the existing knowledge, and the ease of access to potential participants and data for the research (Saunders, Lewis & Thornhill, 2012:173).

Quantitative descriptive research can be identified to be the most effective and appropriate method to be used for the proposed study, as there is existing research about general attractions to National Park as well as research on preference on viewing animals in National Parks but very limited to no research exists about the relative importance of iconic

animals in relation to other attractions of the selected SANParks and the impact they have on the type and number of visitors. It also best describes the characteristics of the phenomena or relationship between variables as accurately as possible by comparing the relative importance of various attractions of National Parks to the relative importance of iconic animals in the selected SANParks. Descriptive research is also seen as an appropriate choice as the use of numerical values will enable accurate comparison of the relative importance of iconic animals in the selected SANParks to effectively position the importance of the presence of iconic animals in relation to other attractions or drawcards to National Parks.

The primary data for this study was obtained from surveying respondents using a communication technique. A highly structured self-administered survey, in the form of an electronic distributed questionnaire, was used to gather the information through asking mainly closed-ended questions (breadth) and a limited number of open-ended questions (depth).

5.2.1   A classification of the study's overall research design

The following list contains descriptors that are considered to be appropriate characteristics describing the broad research design of the study:

- *Empirical research* – The study can be considered as an empirical study as a structured questionnaire was used to collect primary data before it was statistically analysed to show various similarities, differences and correlations between the relative importance of iconic animals and other tourist attractions, the various impacts they have on visitor types and numbers, and their willingness to pay.
- *Basic research* – According to Zikmund (2003:4), the main purpose or aim of basic research is to increase scientific knowledge and in this study research is undertaken to understand the relative importance of the presence of iconic animals relative to other attractions and the various impacts involved with iconic animal introductions and/or reintroductions.
- *Descriptive research* – Research is considered descriptive if it aims to find answers to the questions *who, what, where, how* and *why* (Cooper & Schindler, 2006:141). By

doing so the objective of descriptive research is met as an accurate profile of persons, events or situations is portrayed (Saunders, Lewis & Thornhill, 2007:134). The study aims to determine the impact of the presence of iconic animals on visitation including visitor types and visitor numbers through investigating what past, current and potential visitors to selected South African National Parks desire, what they expect, who they are, and why they visit the selected parks.

- *Cross-sectional research* – Cross-sectional research is used to examine one variable in different groups that are similar in all other characteristics. It is used to collect data to make inferences about a population of interest (universe) at one point in time. This study can be described as cross-sectional research because it involves the study of a particular phenomenon at a particular point in time and not over an extended period of time to track changes (Cooper & Schindler, 2006:141). The data is collected by only surveying each participant once and thus representing a snap shot of the phenomenon at that specific point in time.

- *Non-experimental study* – The study does not measure effects through the manipulation of controlled variables but rather through seeking existing relationships between uncontrolled variables.

- *Primary data* – Primary data, often referred to as original research, includes all the data that is collected specifically for the research study at hand (Zikmund, 2003:53). To be able to answer the research questions empirical data needs to be collected unique to the study.

- *Numeric (Quantitative data)* – According to Cooper and Schindler (2006:716), quantitative research is used when an exact measurement is needed of a specific behaviour, attitude, knowledge. This research is quantitative in nature as the data collection technique that was used is a web-based survey which generates data in numerical form.

5.3   SAMPLING

Sampling is used when the researcher faces certain restrictions in terms of available funding, time and access to data. In such instance, the researcher can collect data from a subgroup or sample which refers to all the elements from which information is gathered in order to solve a particular research problem (Saunders *et al.,* 2007:204). Sampling is the

process of selecting a small portion of the study population for data collection and analysis in order to draw conclusions or identify a trend. This study population from which the sample is drawn is also referred to as the target population. The following section describes the target population, the sampling method used and the sampling size selected for the study.

5.3.1   Target population

According to Saunders, Lewis and Thornhill, (2009:212), the target population refers to the "full set of cases" from which a sample will be drawn. The target population relevant for the quantitative research consists of the visitors or tourists to the selected SANParks, namely Addo Elephant National Park, Karoo National Park, and Mountain Zebra National Park of the last five years. The population of visitors or tourists includes domestic and international participants of both genders and all cultural and racial backgrounds, representing all target markets of the selected SANParks. The suitability of the respondents was established based on the fact the visitors or tourists have previously visited the parks, are currently visiting the parks, or would want to visit the parks in the future. The SANParks data base of the three selected parks was used for the data collection. The units of analysis are the individual visitors or tourists of the selected SANParks.

5.3.2   Sampling method

The various sampling methods are grouped into two broad categories, namely probability and non-probability sampling. According to Leedy and Ormrod (2005:205), probability sampling ensures that each segment of the population has an equal chance of being selected whereas with non-probability sampling the researcher cannot forecast or guarantee that each element of the population is represented in the sample.

To select the respective sample for the data collection of self-completion questionnaires a non-probability sampling method was used. The non-probability sample is described as a sampling technique where the units of the sample are chosen based on convenience or personal judgement (Zikmund & Babin, 2010:311). Convenience sampling involves haphazardly selecting those cases that are easiest to obtain to the required sample, and is

known as an unrestricted way of sampling (Cooper & Schindler, 2006:422). This method was chosen for the advantage of being unrestricted, cost effective and time friendly. The questionnaire was distributed via email by SANParks to the extracted address list of clients of the respective databases who indicated that SANParks can contact them to participate in surveys.

The disadvantage of a non-probability sample, with specific reference to convenience sampling, is that there is no real control over the sample selection process meaning that the sample may be unrepresentative of the population. Although the sampling method itself might be unrepresentative of the population, the study limited this disadvantage by using the existing database of Addo Elephant, Karoo and Mountain Zebra National Park.

5.3.3   Sample size

A population can never be truly reflected by the sample, but it is up to the researcher to determine the size of the sample that will fit in with the requirements of the study. An appropriate sample size is important as it interacts with the level of confidence in the data obtained.

According to Saunders *et al.* (2009:214), the selection of an appropriate sample size is a comparison between the necessary accuracy of the findings, the cost of the research and the time available for the collection and analysis of data. For the quantitative research the study aimed to achieve a relative and representative sample size of respondents representing the three selected SANParks respectively. With regards to the online self-administered questionnaires, 11 811 emails were sent out in total to all respondents from all three selected SANParks databases who indicated their willingness to participate in surveys. Taking into consideration the 5% margin of error and the 95% confidence interval recommended by Saunders *et al.* (2009:219), the sample size required for the total visitor population of 11 811 is 591 respondents. A total number of 2444 responses were received from the online self-administered questionnaires.

5.4 DATA COLLECTION

5.4.1 Survey method

An appropriate strategy that allows for the primary numerical data collection in quantitative descriptive research is a survey strategy (Saunders *et al.,* 2009:144). The survey within this study was conducted without an interviewer present by using a measurement instrument called a questionnaire. An Internet mediated questionnaire was chosen as the main data collection method as it provided an efficient way of collecting responses from visitors or tourists of the selected SANParks. The respondents were asked to respond to the same set of questions which allowed for statistical data analysis.

The web-based questionnaire was developed with the online research software company Qualtrics. The questionnaire was distributed by SANParks via email on 29 June 2014 to the relevant email addresses of visitors or tourists to the selected parks. The link for the completion of the questionnaire was made available until 30 August 2014 which concluded the data collection period. The Qualtrics system ensured that the data file was generated saving data automatically as a respondent completed the questionnaire. Furthermore, the web-based software prevented multiple responses from the same respondent, while ensuring that all responses remained anonymous.

The self-administered, online survey was the most appropriate method for distributing and conducting research for this study as potential respondents were geographically widely dispersed, both locally and internationally. It also allowed the participants to complete the survey anonymously and at their own pace. This method also ensures more reliable and un-biased results as there was no interviewer or researcher present to influence the response of the participant.

Table 5.1 summarises the advantages and disadvantages of a self-administered online questionnaire delivered via the Internet.

Table 5.1: Advantages and disadvantages of a self-administered questionnaire

Advantages	Disadvantages
Access to otherwise inaccessible participants	No interviewer intervention available
Expanded geographic coverage area	Low response rates
Lowest cost	Anxiety among participants
Requires minimal staff	Participants could represent extremes of the population
More complex instruments can be used	Computer security
Rapid data collection	Accurate mailing lists needed
Fast access to the computer literate	

Source: Cooper and Schindler (2011:249)

5.4.2   Data collection instrument

The data collection instrument used for the quantitative research, namely a self-completion questionnaire, is based on gaining information about the relative importance of iconic animals in the selected SANParks in relation to other attractions and drawcards of the SANParks. The self-completion questionnaire assessed what past, current, and future visitors want from a nature-based product. Furthermore the questionnaire focussed on determining the relationship between visitor numbers to the selected SANParks and the presence of the iconic animals as well as the possible change in the type of tourist.

The questionnaire was divided into four broad categories. The first category measured the relative importance of iconic animals in relation to other attractions and drawcards of the selected SANParks. The second category measured aspects relating specifically to the individual selected SANParks. The third category determined the economic implications of introductions and/or reintroductions, and the fourth category identifies the characteristics and demographics of the respondents. The questions were divided into these categories to provide the respondents with a structure by grouping related questions together and letting them follow in a logical sequence. The questions were formulated in such a way to match the skills and the level of understanding of the visitors or tourists of the selected parks representing the target population of the study. As the target population consist of a variety

of people with various educational backgrounds, no jargon or highly scientific words were used in the questionnaire to keep it simple and easily understandable to ensure consistency in the interpretation of the question. A copy of the final data collection instrument is attached as Appendix A.

Table 5.2 matches the research objectives of the study with the relevant sections of the questionnaire.

Table 5.2: Research objectives and survey sections matrix

Research objective	Relevant sections and questions in questionnaire
• To determine what past, current and future visitors want from a nature-based tourism product in selected SANParks.	Section one (Q1, Q3)
• To ascertain how closely the current offerings of the selected parks match visitor's nature-based product desires.	Section two (Q3, Q4, Q5, Q10, Q 11)
• To determine the relative importance of iconic animals as an attraction in the selected parks in relation to other attractions.	Section one (Q4, Q5)
• To determine the relationship between the visitor numbers to the selected parks and the presence of the iconic animals.	Section four (Q6, Q7, Q8, Q9)
• To determine if the type of visitor changes because of the introduction or reintroduction of iconic animals into the selected SANParks.	Section four (Q15 – Q23)
• To investigate the financial considerations with regards to the willingness to pay for the presence of iconic animals in the selected SANParks namely Addo, Karoo and Mountain Zebra National Park.	Section three (Q12, Q13, Q14)

5.4.3 Measurement

To collect quantitative data from the visitors of the selected SANParks, certain measurement scales were used. According to Keyton (2011:100), scaling is defined as a procedure for the assignment of numbers or other symbols to a property of objects in order to impart some of the characteristics of numbers to the properties in questions.

Measurement scales are of three types namely rating, ranking, and categorisation. A rating scale is used when respondents score an object or indicant without making a direct comparison to another object or attitude. Ranking scales constrain the study participant to

make comparisons among two or more indicants or subjects. Categorisation asks respondents to put themselves or property indicants in groups or categories.

The measurement instrument was designed to capture data from four different sections in order to achieve the research objectives for the study. The questionnaire was newly developed based on similar previous empirical research from Kruger and Saayman (2010); Ritchie and Crouch (2003); Saayman and Saayman (2009:5) and Scholtz *et al.* (2013:2) including the various scales in the four different sections. The questionnaire was also refined through the department of statistics to ensure the appropriateness and correctness of the questions to be able to receive the correct data needed to test the hypotheses.

To determine the type of visitor the questionnaire collected data to compile a generic demographic profile for tourists visiting a national park for the purpose of viewing wildlife. The questionnaire also collected data to gain some insight into the economic considerations of introductions and/or reintroductions of iconic animals with specific regards to the visitors' willingness to pay for wildlife viewing.

The questions in the questionnaire were mostly closed questions or forced-choice questions which included list questions, category questions, rating questions and quantity questions (Saunders *et al.,* 2012:432). Some open-ended questions were also used to force respondents to provide more-in-depth answers or to specify options or reasons that might not have been identified or recognised otherwise.

In the data collection instrument, the self-completion questionnaire, the following type of rating scales were used: simple category scales, multiple choice single response scales, multiple choice multiple response scales, and Likert scales. Five point scales were required to be able to position the importance of iconic animals in relation to other attractions or drawcards of the selected SANParks. Furthermore, forced ranking and rating scales were used to provide nominal, ordinal, interval and ratio data.

This data is used to test the hypotheses that derive from the research objectives of the study. The hypotheses that are tested are shown in Table 5.3 and Table 5.6. These tables focus on how the hypothesis is constructed, the variables and constructs involved as well as how each construct will be measured to ensure reliability of each hypothesis.

Table 5.3: Analysis of Hypothesis 1

Aspect	Detailed questions	
Wording	$H_{1(null)}$: Iconic animals are not a greater attraction relative to other attractions in selected parks.	
	$H_{1(alt)}$: Iconic animals are a greater attraction relative to other attractions in selected parks.	
Type of hypothesis	Hypothesis investigating the relationship between variables.	
	This is a non-directional (two-tailed) hypothesis.	
Key constructs	**Measurement**	**Source of scales**
Iconic animals	Question 4, Question 5, Question 8, Question 9	Own design
Other attractions	Question 4, Question 5	Own design

Table 5.4: Analysis of Hypothesis 2

Aspect	Detailed questions	
Wording	$H_{2(null)}$: Visitor numbers will not increase as a result of the presence of iconic animals in selected parks	
	$H_{2(alt)}$: Visitor numbers will increase as a result of the presence of iconic animals in selected parks	
Type of hypothesis	Hypothesis investigating the relationship between variables.	
	This is a non-directional (two-tailed) hypothesis.	
Key constructs	**Measurement**	**Source of scales**
Visitor numbers	Question 6, Question 9,	Own design
Iconic animals	Question 6, Question 9	Own design

Table 5.5: Analysis of Hypothesis 3

Aspect	Detailed questions	
Wording	$H_{3(null)}$: The type or profile visitors will not change with the introductions or reintroduction of the iconic animals into the selected SANParks.	
	$H_{3(alt)}$: The type or profile of visitors will change with the introduction or reintroduction of the iconic animals into the selected SANParks.	
Type of hypothesis	Hypothesis investigating the relationship between variables.	
	This is a non-directional (two-tailed) hypothesis.	
Key constructs	**Measurement**	**Source of scales**
Type or profile of visitor	Question 6, Question 9, Question 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 (Demographics)	Own design
Iconic animals	Question 6, 8, 9	Own design

Table 5.6: Analysis of Hypothesis 4

Aspect	Detailed questions		
Wording	H$_{4(null)}$: Visitors are not willing to pay more for the presence of iconic animals in the selected SANParks.		
	H$_{4(alt)}$: Visitors are willing to pay more for the presence of iconic animals in the selected SANParks.		
Type of hypothesis	Hypothesis investigating the relationship between variables.		
	This is a non-directional (two-tailed) hypothesis.		
Key constructs	**Measurement**		**Source of scales**
Income or revenue	Question 12, Question 13, Question 14		Own design
Iconic animals	Question 6, 9, 13		Own design

5.4.4 Pre-testing

According to Keyton (2011:177), pre-testing occurs, when the researcher tries the survey or questionnaire with a small group of participants who are similar to those individuals who form the population, before the data collection actually begins.

The pre-testing of the data collection instrument for the quantitative research, to determine if the method of data collection is relevant, reliable and valid, was done in the form of a convenience sample. The questionnaire was discussed with the relevant SANParks managers to establish validity, ensure correct wording of the measured constructs and to refine the questionnaire. After the refinements a total of 12 respondents were selected to ensure that everyone had an equal understanding and interpretation of the questions and constructs which were measured in the questionnaire. This pre-test was conducted by distributing 12 paper-based questionnaires, with an explanation of the study, to random selected people who have been prior visitors to the selected SANParks. By distributing the questionnaires by hand, and physically being present when they complete the questionnaire, it allows for feedback on questions that are not clear, have poor wording, or are misinterpreted by the respondent.

There are various approaches to pre-test a survey. The approach used in the survey was a combination of cognitive as well as conventional pre-testing. The cognitive pre-testing approach was used to help identify the questions that can stimulate multiple interpretations

from the respondent, testing for semantic problems or problems affecting how easily the questions are understood (Keyton, 2011:177). Respondents were asked questions, measuring the same construct, multiple times in different ways to ensure consistency.

Conventional pre-testing is an approach where the researcher selects participants that will complete the survey just like it will be done in the study (Keyton, 2011:177). This type of pre-test was used to analyse the research process and give the researcher a chance to make any alterations to the administration of the survey before it got emailed to the respondents in the sample. By making use of the conventional pre-testing approach, the researcher can overcome problems such as the misunderstanding of the instructions for the completion of the survey, email errors, or problems with the link directing them to the questionnaire to be filled in.

Respondents included academics, SANParks employees, zoologists and other specialists, knowledgeable people in the tourism industry and fellow researchers. Some suggestions from the respondents were incorporated into the final questionnaire before it was finally distributed to the sample. These suggestions included the categories of the demographic profiling (categories of racial profiling were changed as well as the age), the wording of questions (some questions were found to be possibly ambiguous resulting in measuring the wrong thing) and repetitiveness aspects in questions (some motivation/reasons were seen as very repetitive in the attractiveness of the selected SANParks).

5.5   DATA ANALYSIS

5.5.1   Recoding and storing of data

The individual responses were recorded by Qualtrics and the completed datasets were stored online. Once all the data was gathered from the sample, the data output file was exported from the Qualtrics website to Microsoft Office Excel. Closed-ended as well as open-ended questions were coded during the design of the questionnaire which allowed for quantification of the responses and for the data to be easily sorted for statistical analysis. Besides the coding of closed- and open-ended questions, a missing data code

was used by the statistical computer program, SAS, to indicate why data is missing. Time was also spent on detecting and correcting errors in the responses.

Data was processed and analysed to make the raw quantitative data more meaningful. The analysis of the data was performed with the assistance of the Department of Statistics at the University of Pretoria, who advised on various techniques, taking into consideration the nature of the data collection and relevant, particular limitations.

Quantitative data analysis involves the processing of the accumulated data into manageable sizes, looking for patterns, developing summaries, and applying statistical techniques to interpret the findings. For the quantitative data analysis descriptive data is used which best provides the statistical summary of the data. The purpose of these statistics is to provide an overall, coherent, and straightforward picture of a large amount of data. The process used in this study consisted of different techniques including frequency analysis, the measure of central tendency and dispersion, ANOVA, and cross tabulation.

5.5.2   Frequency analysis

The frequency analysis is done by means of frequency tables, a simple device adopted for arraying data. A frequency table arrays data by assigned numerical value, with columns for percentages; percentages adjusted for missing values and cumulative percentages (Cooper & Schindler, 2006:374). A frequency distribution is the simplest way of summarising data for individual variables in order to read specific values (Saunders *et al.*, 2007:423).

5.5.3   Measures of central tendency and dispersion

Measures of central tendency such as the mode, the median, and the mean are important to determine the relative importance of the presence of iconic animals in relation to the other attractions. The mean is the average score, the mode is the value that occurs most frequently and the median is the middle value after the data has been ranked (Saunders *et al.*, 2007:437). The average score that will be given to each attraction determinant will allow a ranking of all the determinants.

Measures of dispersion or variability indicate the degree to which the scores are spread out. Measures of dispersion include the standard deviation, the range, and variance. The standard deviation describes the extent to which data values differ from the mean. The range states the difference between the largest and lowest scores from a distribution of values. The variance is the square of the standard deviation (Saunders *et al.*, 2007:437-439).

5.5.4 Cross-tabulation/chi square test

Cross-tabulation allows identifying relationships between variables and makes the comparison of two classification variables possible. This technique is used for comparing data from two or more categorical variables by using tables with rows and columns corresponding to the levels or code values of each variable's categories (Cooper & Schindler, 2006:482). Each cell contains a count of the cases of the joint classification and also the row, columns, and total percentages.

Chi-square tests can determine how closely observed frequencies or probabilities match expected frequencies or probabilities (Saunders *et al.*, 2007:444). According to McCrum-Gardner (2008:40), chi-square tests are used to compare proportions between two or more independent groups, or investigate if there is any association between two nominal-scale variables.

5.5.5 Analysis of variance (ANOVA)

The analysis of variance (ANOVA) is used to test the relationships between the variables. Analysis of Variance (ANOVA) is a statistical method used to test the null hypotheses through testing the differences between two or more means. The one-way ANOVA compares the means between the groups and determines whether any of those means are significantly different from each other. The statistical formula used in ANOVA for testing the null hypotheses can be identified as follows (where μ = group mean and k = number of groups):

$$H_0: \mu_1 = \mu_2 = \mu_3 = \ldots = \mu_k$$

If the one-way ANOVA returns a significant result, the alternative hypothesis is accepted, meaning that there are at least 2 group means that are significantly different from each other.

The ANOVA test is the initial step in identifying factors that are influencing a given data set. The ANOVA technique was used to test the relationship between one dependent variable and independent variables separately. Two-way analysis of variance was used in the study which uses a multi-factor model to compare the effects of several factors on a continuous dependent variable (Cooper & Schindler, 2006:552).

To be able to use ANOVA, certain conditions must be met. The sample of the study must be, and was randomly selected from a normal population and the populations should have equal variances. In addition, the distance from one value to its group's mean should be independent of the distances of other values to that mean. This is also referred to as the independence of error. ANOVA is reasonably robust and minor variations from normality and equal variance are tolerable (Cooper & Schindler, 2006:546). The test statistics used for ANOVA is the F ratio. If the null hypothesis is true, there should be no difference between to the populations and the ratio should be close to 1. If the population means are not equal, the numberator should manifest the difference and the F ratio should be greater than 1, which means that the null hypothesis is rejected. The F distribution determines the size of the ratio necessary to reject the null hypothesis for a particular sample size and level of significance (Cooper & Schindler, 2006:547).

5.6   ASSESSING AND DEMONSTRATING THE QUALITY AND RIGOUR OF THE RESEARCH DESIGN

5.6.1   Bias and errors

A self-administered online survey, based on a Likert scale questionnaire with some open-ended questions, leads to various errors that will influence the results of the study. These errors are divided into two broad categories namely the participant error and the measurement error (Du Plooy, 2009:203).

The errors that may be encountered in this survey may include the following:

- Compliance error:

  According to Du Plooy (2009:203), a compliance error occurs when a respondent agrees with statements regardless of the content of the question. This may become a problem when measuring the relative importance of the presence of iconic animals in the selected SANParks as participants might not represent their true feeling in the response. This will produce false results that could misrepresent the target population.

- Non-response error:

  A non-response error can be categorised into total non-response, and item non-response errors. Both these errors could occur in this survey. The total non-response error arises if the survey participants refuse to respond to the questionnaire by not filling them in. An item non-response error occurs when the respondent fails to answer or fill in some of the questions on the questionnaire which could endanger the accuracy of the finding by affecting the overall statistics of each cluster group, and the target population as a whole.

- Response error

  A response error occurs when a respondent does not understand the questions, or if the responses are filled in inaccurately due to a reading error or lack of concentration. This error will also affect the results of the survey as the perceptions are meant differently by the respondent and are faulty.

Errors in data collection could also be made by the individual interpreting and capturing the data by making mistakes when the responses are incorrectly entered into the statistical system.

When assessing the sampling method, various errors could come about that would also affect the validity and reliability of the results. Sampling bias is an error that should be taken into consideration for this data collection method, as each unit of analysis may not have an equal chance of selection, due to the statistical processes involved in the selection of respondents, namely simple random sampling. A bias can also develop by

excluding certain respondents from the sample through the random selection drawn from the sample frame. In a probability sample, the sampling error will always occur as the researcher collects data from the sample and not from all the elements in the entire population (Keyton, 2011:124).

To overcome the errors in data collection and to reduce the impact they have on the results, there are various methods and strategies that can be used in this regard. To limit the impact of the compliance error and the non-response error, a self-administered online survey is used, as the respondents can complete the questionnaire in their own time and it is very easy to only fill in the answers of a Likert scale questionnaire with some open-ended questions on the computer. Pre-testing the questionnaire to see if the questions are understood in the right way reduces the effect of the response error and ensures more accurate results. To ensure maximum efficiency in recording the data and to limit the bias, the use of statistical systems, such as SPSS, are advised. The sampling error is reduced by increasing the sample size of the population which was done as far as possible in this survey.

5.6.2   Validity

Validity of the study can be divided in to two main subcategories, namely, internal validity and external validity (Du Plooy, 2009). Internal validity of the study can be ensured by the use of accurate operationalisation of constructs within the study, unobtrusive measuring of said constructs, as well as a thorough considerations of the limitations for the study. External validity is ensured by selecting a representative sample of the total given sample population, as well as the ability of the sample to respond to questionnaires in the appropriate environment with minimal external pressures of bias influences.

5.6.3   Reliability

Reliability of a survey refers to the measurement of its degree of stability, trustworthiness, and dependability (Keyton, 2011:110). To ensure reliability of the research and methods used in the survey, pre-testing on the data-collection instrument was done as discussed above, using a combination of cognitive as well as conventional pre-testing. The data-

collection instrument, the questionnaire, includes repeat measurements and consistent questions ensuring that very similar results are obtained each time it is used by a respondent.

Reliability is expressed as a matter of degree and researchers use the reliability coefficient, a number between zero and one to express how reliable their measures are. Internal reliability or consistency should calculate any measuring instrument that includes multiple items. This can be calculated by the use of the statistical software programme, SPSS, which is able to calculate the internal reliability coefficient (Keyton, 2011:112). This test is referred to as Cronbach's Alpha (Keyton, 2011:112). The statistic produced by Cronbach's Alpha is the coefficient alpha, which is discussed within the results of the research study. In order for the method to be considered reliable, a coefficient of 0.70 or higher is to be established in order for internal reliability to be considered sufficient. For this study, SPSS will be used in order to calculate the reliability of the questions in terms of measuring the relative importance the presence of iconic animals in the selected SANParks.

5.7   RESEARCH ETHICS

The study is designed in a way that considers the most important ethical principals when conducting research. The list below discusses the specific ethical principles that apply to the study.

- *Plagiarism* – Proper recognition is given to all sources which were used. All secondary data is accompanied by in-text references.
- *Confidentiality and anonymity* – The study in an anonymous survey. The name or the respondent or participant does not appear on the questionnaire and the answers they give are treated as strictly confidential. No respondents or participant can be identified in person based on the answers they give.
- *Voluntary participation* – The respondent or participant may choose not to participate in the survey and may also stop participating at any time without any negative consequences.
- *Academic purposes* – The results of the study will be used for academic purposes only and may be published in an academic journal. A summary of the findings can be

sent to the respondents or participants on request. All the research data will be archived and stored in a secure place.

- *Incentives* – The respondent or participant were not provided with any monetary or non-monetary incentives, including prize draws or gifts, to encourage them to participate in the study or to thank them for the participation.

- *Permission of organisation* – A contract was signed stipulating the terms and conditions for conducting research within the SANParks organisation thus grating the researcher permission to use the respective databases and collect data.

- *Researcher's honesty, objectivity and integrity* – The researcher will be honest in reporting on all findings and will try to be as unbiased as possible. No falsification or misleading and false reporting of the research findings will take place.

- *Protection from harm* – No physical or psychological harm is done to any respondent or participant of the study. The study respects the participants, avoids any physical injury, as well as any stress, embarrassment or loss of self-esteem to the respondents as a result of the study.

Each respondent or participant is provided with an informed consent form to indicate that he/she has been informed about the nature of the study and is participating in the study on a voluntary basis. This informed consent form is read and signed (ticked and proceed online) by every respondent participating in the study. Appendix B contains the informed consent form that was used in the study.

5.8   CONCLUSION

This chapter discussed the research methodology of the study. Attention was given to the research process itself which can be classified as a quantitative approach. A non-probability sampling technique, namely convenience sampling, was used in this study to achieve the desired objectives and to answer the research questions. A web-based questionnaire served as the study's survey instrument, which was sent to the target population. Since it is so deeply rooted in numbers and statistics, quantitative research has the ability to effectively translate data into easily quantifiable charts and graphs. These will be presented in the next chapter. In the next chapter the results from the surveys will be presented and discussed.

CHAPTER 6: RESEARCH RESULTS

6.1   INTRODUCTION

The preceding chapter provided a discussion on the methodology used in the study to gather the data whereas this chapter presents the findings of the empirical research. The presentation of results begins with a general demographic profile of the visitors to the selected SANParks in order to establish the characteristics of the population and to provide a foundation for segmentation and further statistical analyses. Thereafter the relative importance of iconic animals is assessed in relation to other attractions to determine possible variations in visitor numbers as well as visitor types. Lastly the willingness to pay for the presence of iconic animals is discussed. The presentation of the results is guided by the six research objectives to make it easier to analyse the results and ultimately the hypothesis. The data discussed in this section is quantitative by nature, and the use of charts, graphics and tables will enable a simplified reporting of the findings.

6.2   DESCRIPTIVE STATISTICS

The questionnaire was successfully sent to 11 811 e-mail addresses on the SANParks database including current and past visitors to Addo Elephant, Karoo, and Mountain Zebra National Park. Two thousand four hundred and forty four (2444) responses were received which represent a response rate of 21%. Of these 2444 responses received from the self-administered web-based questionnaire, various questionnaires were incomplete. According to Krosnick (1999), the incomplete questionnaires could be ascribed to any one or more of a number of reasons including:

- The questionnaire includes some sensitive issues such as financial considerations. As this represented only one section of the questionnaire, the completed responses were incorporated and the questionnaires were not disregarded all together.
- Respondents avoid answering questions that may be unflattering (sharing their behaviour).

- Questions presented later in the questionnaire may lead to fatigue and disinterest of the respondents.

- Respondents may view questions as difficult as a result of the question format.

The data set contained two types of missing data, namely randomly missing data (no pattern established) and non-random missing data (a pattern exists for the absence of data). Maximum likelihood was used to estimate missing values in the case of randomly missing data. However, this technique could not be used in the case of non-random missing data. In such cases, missing values could not be replaced and this led to lower N-values for certain questions. Reasons for non-random missing data were accounted for in each instance (Kline, 2011)

The open-ended questions were coded in order to group the responses in relevant categories. This allows for the quantification of the open-ended responses to provide graphical representation of the results.

6.2.1   VISITOR PROFILE

A general demographic profile of the past and current visitors to the selected SANParks was established. The demographic profiling included gender identity, whether they have children, age, race, education, and their income. The visitor profile variables are subsequently summarised in Table 6.1 to get a better understanding of the profile of the respondent.

Table 6.1: Visitor profile variables

Variable	(n)	Classification	Frequency (*f*)	Percentage (%)
Gender:	**1545**	**Male**	945	61.2
		Female	600	38.8
Children:	**1545**	**Yes**	1042	67.4
		No	503	32.6
Age:	**1537**	**10-20**	11	0.7
		21-30	71	4.6
		31-40	199	12.9
		41-50	306	19.9
		51-60	404	26.3
		61-70	417	27.1
		71-80	124	8.1
		81-90	4	0.3
		91-100	1	0.1
Race:	**1545**	**African**	10	0.6
		Indian / Asian	7	0.5
		Coloured	9	0.6
		White	1466	94.9
		Other	53	3.4
Education:	**1513**	**Primary school education**	2	0.1
		Grade 12	167	11.0
		Diploma / National Certificate	395	26.1
		Degree	395	26.1
		Post graduate degree	503	33.2
		Other	51	3.4
Income: (average monthly net)	**1513**	**Less than R20 000**	312	20.6
		R20 001 – R40 000	535	35.4
		R40 001 – 60 000	343	22.7
		More than R60 000	323	21.3

As seen in Table 6.1, 945 (61.2%) of the 1545 respondents accounted for males whereas only 600 (38.8%) for females. A total of 1042 (67.4%) respondents indicated that they have children whereas only 503 (32.6%) have no children. The majority of the respondents were in the age groups 51 to 60 years (26.3%) and 61 to 70 years (27.1%) which represents 53.4% of the respondents. The next biggest group was between the ages 41 to 50 years (19.9%) followed by the age group 31 to 40 years (12.9%). Taking these results into consideration, the average age of the 1537 respondents is approximately 53 years as depicted by the mean in Table 6.2.

Table 6.2: Descriptive statistics for age of respondents

	N	Median	Mean	Std Dev	Minimum	Maximum
Age	1537	55	53.87	13.42	13	94

Most of the respondents (94.9%) were white, with a smaller group of respondents (1.7%) being black (African), coloured and Indian/Asian. A total of 1513 respondents indicated

their highest level of education ranging from 503 (33.2%) respondents having a post graduate degree, 395 (26.1%) having a degree as well as 395 (26.1%) having a diploma / national certificate, 167 (11.0%) having grade 12, and 2 (0.1%) respondents having primary school education. 51 respondents also indicated other options ranging from international education, pilot and military positions, FGASA field guide, professional qualifications, and other specific diplomas, certificates, and degrees. About 35% of the respondents earn an average monthly net income of between R20 001 and R40 000 a month and just over 20% of the respondents earn less than R20 000 or more than R60 000 a month. Figure 6.1 displays the results of the disclosed income groups of which it becomes evident that the responses were fairly even distributed throughout the income earning groups.

Figure 6.1: Average monthly net income
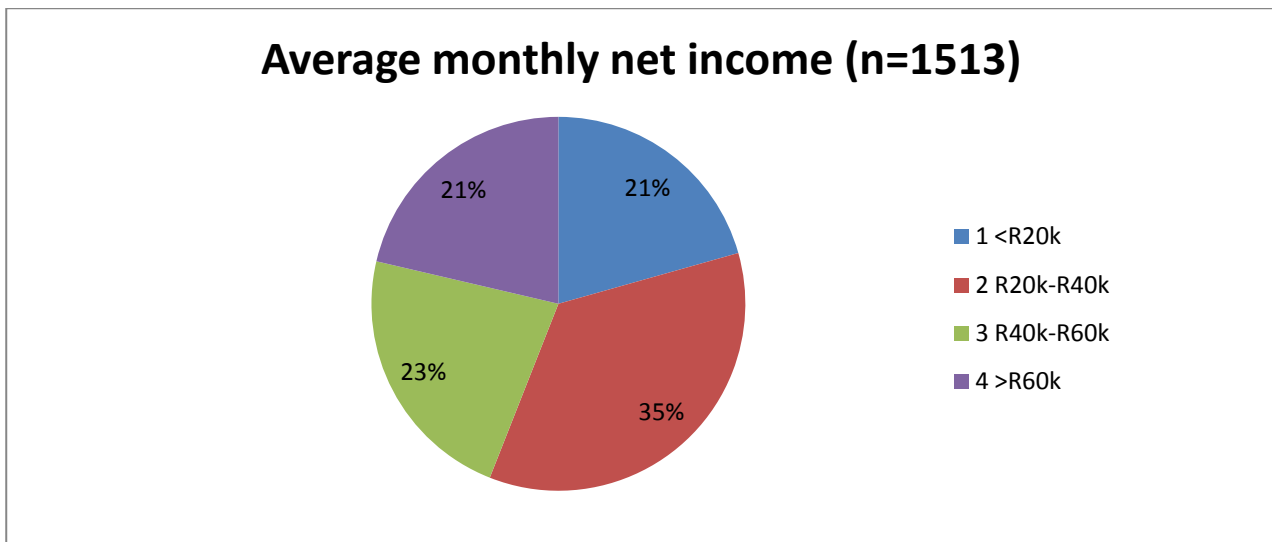
Most of the respondents (33.3%) live in the Western Cape, 28.9% respondents live in Gauteng and only 0.6% of respondents live in the Northern Cape as depicted in Figure 6.2.

Figure 6.2: Respondents place of origin

Respondents place of origin (n=1541)

- International: 170
- NorthernCape: 9
- Eastern Cape: 180
- Western Cape: 513
- Mpumalanga: 52
- KwaZuluNatal: 83
- Free State: 42
- Limpopo: 25
- North West: 21
- Gauteng: 446
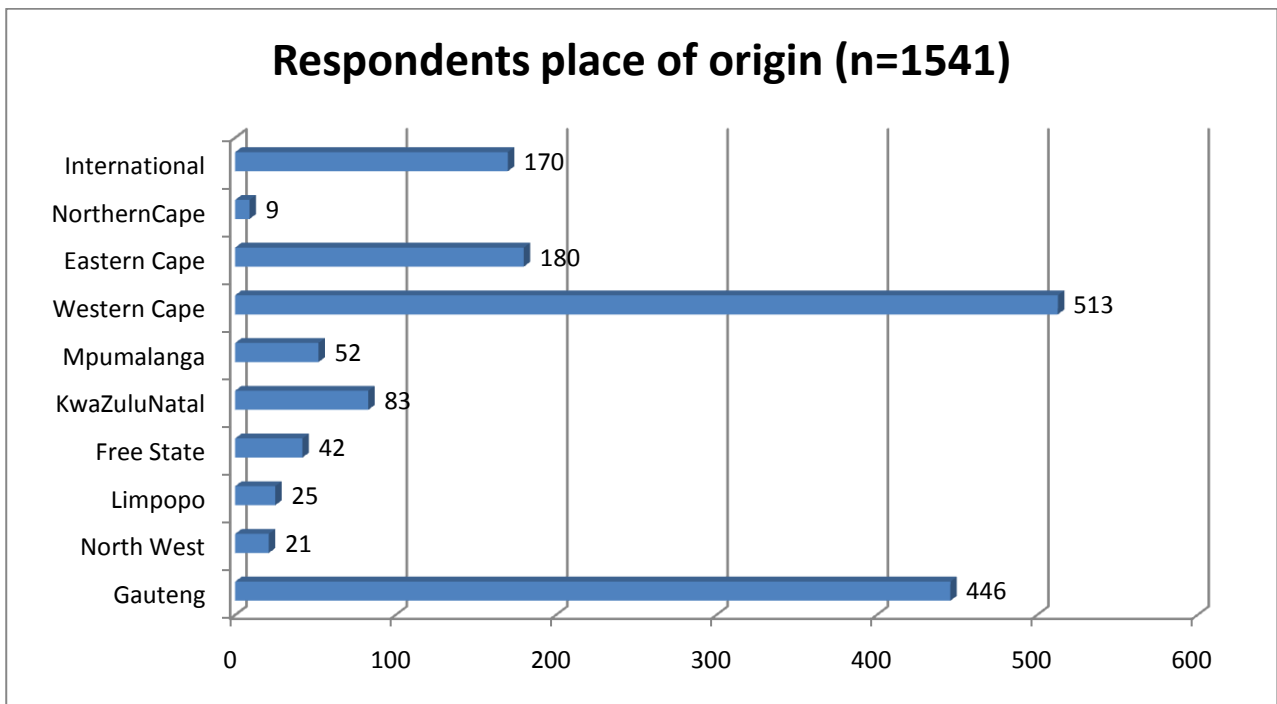
The results showed that 170 respondents are international visitors and originate from nationalities including the United Kingdom (46), Germany (24), the United States (23), the Netherlands (21) and Switzerland (9). Other countries included Australia, Austria, Italy, Namibia, Belgium, Canada, Argentina, Denmark and Ireland. As graphically displayed in Figure 6.3 the international respondents amounted to 11% whereas the majority of the respondents (89%) were South African.

Figure 6.3: Domestic and international visitors

Domestic vs International visitors

- Domestic visitors: 89%
- International visitors: 11%
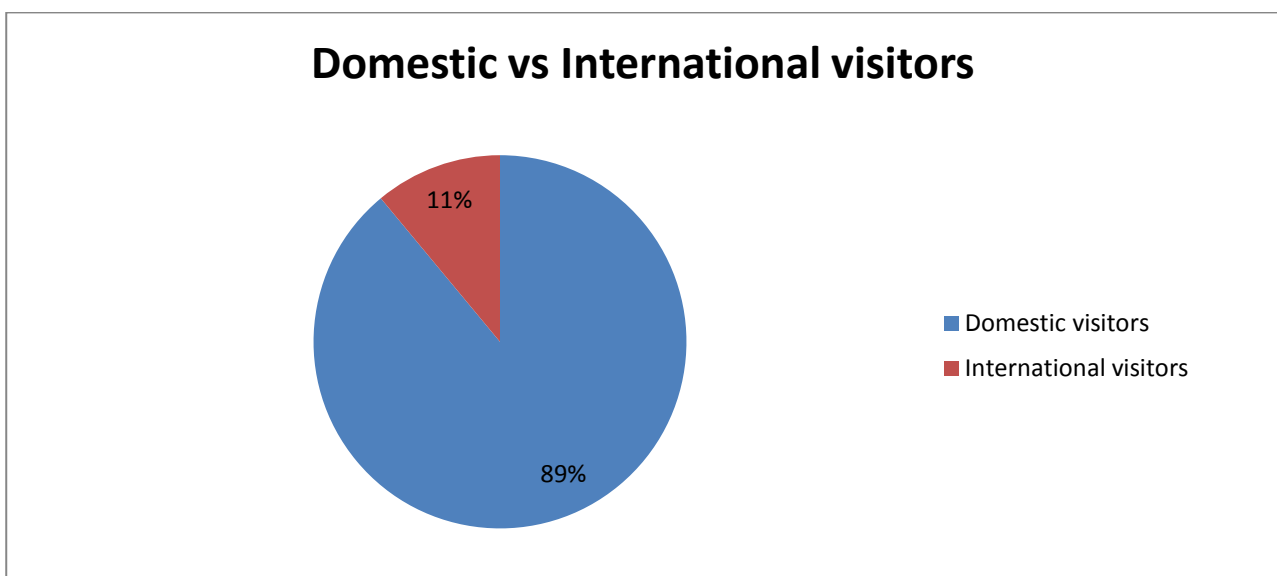
Looking at the aspect of how many people the respondents travel with, the results showed that the majority of respondents (52.9%) travel in pairs (2 people), whilst 23.3% of the respondents travel in groups of four, when visiting a park. Figure 6.4 shows that if respondents do travel in groups, the groups are rarely bigger than 6 people as only 24 respondents (1.56%) from the 1534 indicated that they travel in groups ranging from 7 to 20 people.

Figure 6.4: Number of travel companions
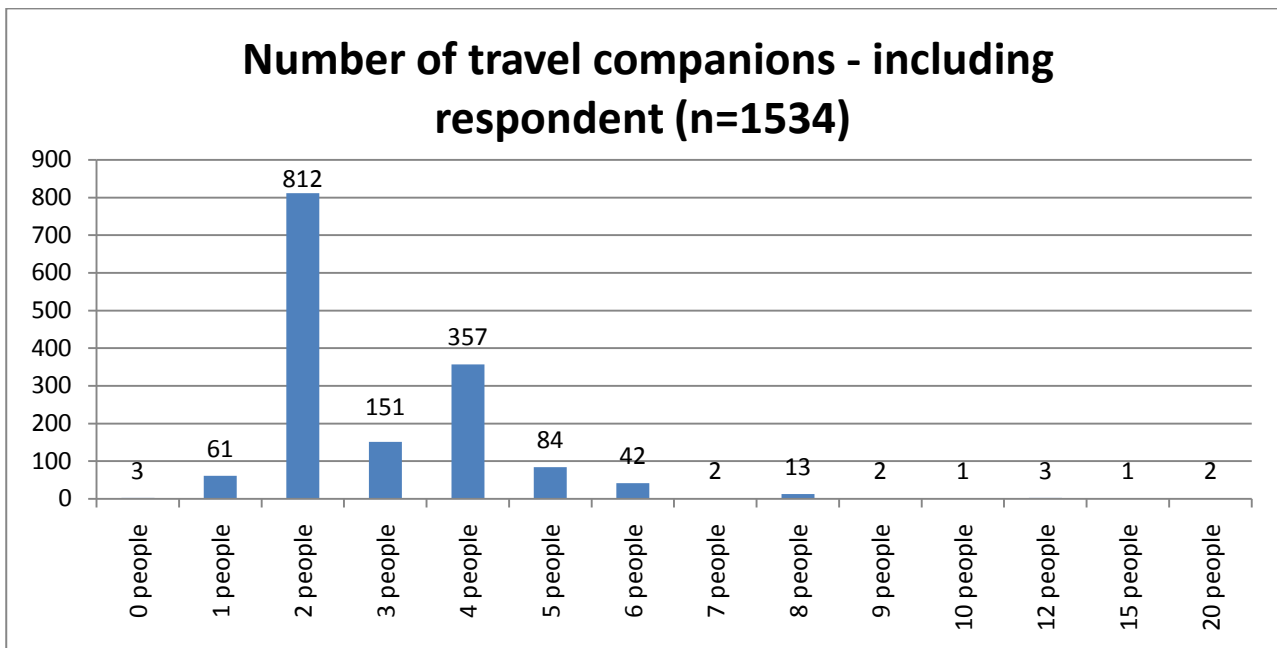
Relating to the number of people travelling, respondents were asked to indicate with whom they mostly travel when visiting a park. Most of the respondents (63.6%) indicated they travel as a couple, 566 (36.9%) as a family with children, 432 (28.1%) with friends, and 38 (2.5%) travel with an organised group. The remainder of respondents (70, 4.6%) specified other companions including travelling with parents, as a family with elderly people, as a family without children, siblings, grandparents, international visitors, for educational purposes or with specialised tours like photography tours. Figure 6.5 stipulates the frequency of the respondents overall impression of who the companions are mostly travelled with when visiting a park.

Figure 6.5: Travel companions mostly travelled with

Companions mostly travelled with

■	Alone
■	As a couple
■	As a family (with children)
■	Friends
■	Organised group
■	Other

(Pie chart values: 38, 70, 66, 432, 977, 566)
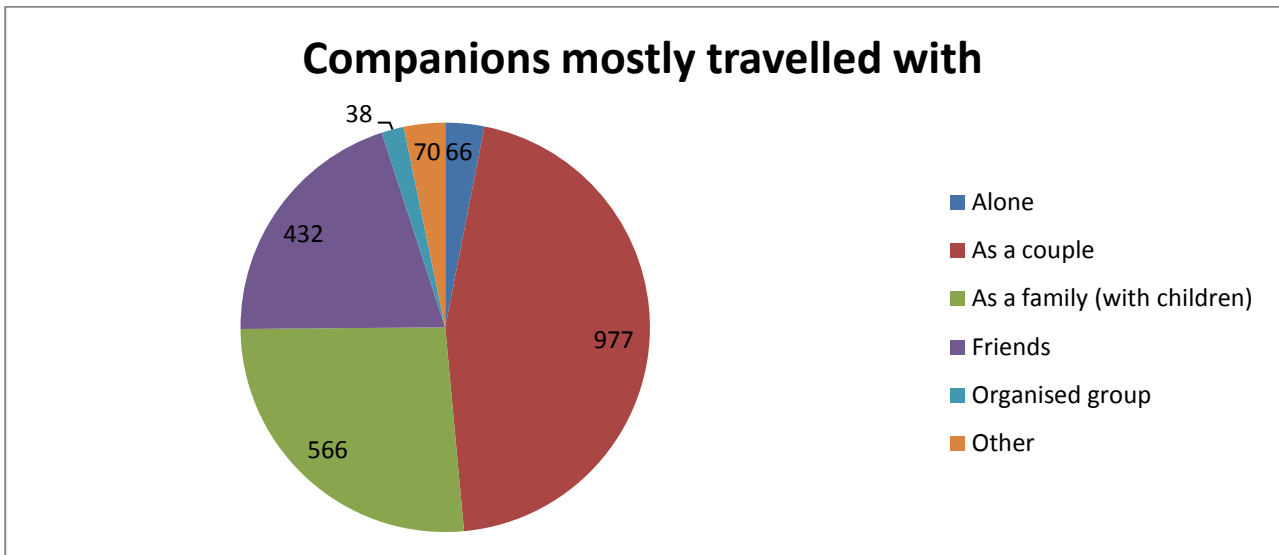
Assessing the general travel patterns of the respondents with regards to length of stay, the respondents were asked to indicate how long they generally stay when visiting the selected SANParks and whether or not they would consider staying longer if the "Big 5" or iconic animals were present in the parks. The results demonstrated that the typical length of stay at Addo Elephant National Park is 3 days on average, 2 days at Karoo National Park, and 2 days in Mountain Zebra National Park. These values are represented as the means with a minimum value of 0 days and a maximum value of 50 days. As stipulated in Figure 6.6 the additional number of days spent in case of the presence of iconic animals is on average 1 extra day at Addo Elephant, Karoo and Mountain Zebra National Park.

Figure 6.6: Average length of stay

Average length of stay (n=1517)

Park	Typical stay (number of days)	Additional number of days (place a zero if no extra days)
Addo Elephant NP	2.99	1.08
Karoo NP	2.30	1.06
Mountain Zebra NP	2.23	1.09
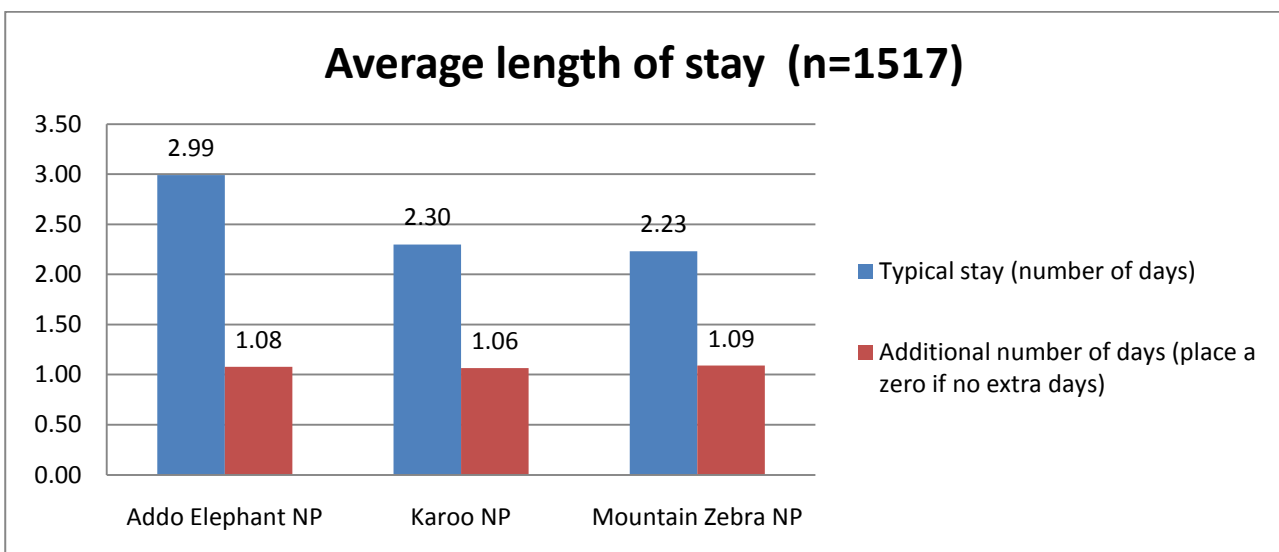
6.2.2 What tourists want from a nature-based tourism product

To determine what past, current and future visitors want from a nature based tourism product in the selected SANParks a distinction was made between overnight and day visits. Figure 6.7 shows the number of overnight and day visits to the selected SANParks named Addo Elephant, Karoo, and Mountain Zebra National Park. Addo Elephant National Park was visited most in the last five years with regards to overnight as well as day visits. Most of the respondents have visited the selected park once or twice in the last five years. There is also a greater frequency of overnight visits as opposed to day visits in all three parks as visible in Figure 6.7.

Figure 6.7: Number of overnight and day visits to the selected SANParks

Number of visits to selected SANParks over the last 5 years (n=2245)

	Addo Elephant NP		Karoo NP		Mountain Zebra NP	
	Overnight Visits	Day Visits	Overnight Visits	Day Visits	Overnight Visits	Day Visits
1	592	109	532	68	479	56
2	276	47	234	20	193	21
3	169	31	152	11	76	9
4	72	29	69	7	26	9
5	78	34	36	2	29	3
6-10	65	55	40	0	32	3
11-20	31	32	3	0	5	0
21-50	9	16	3	0	1	1
51-100	1	4	1	0	0	0
101-500	1	2	0	0	0	0
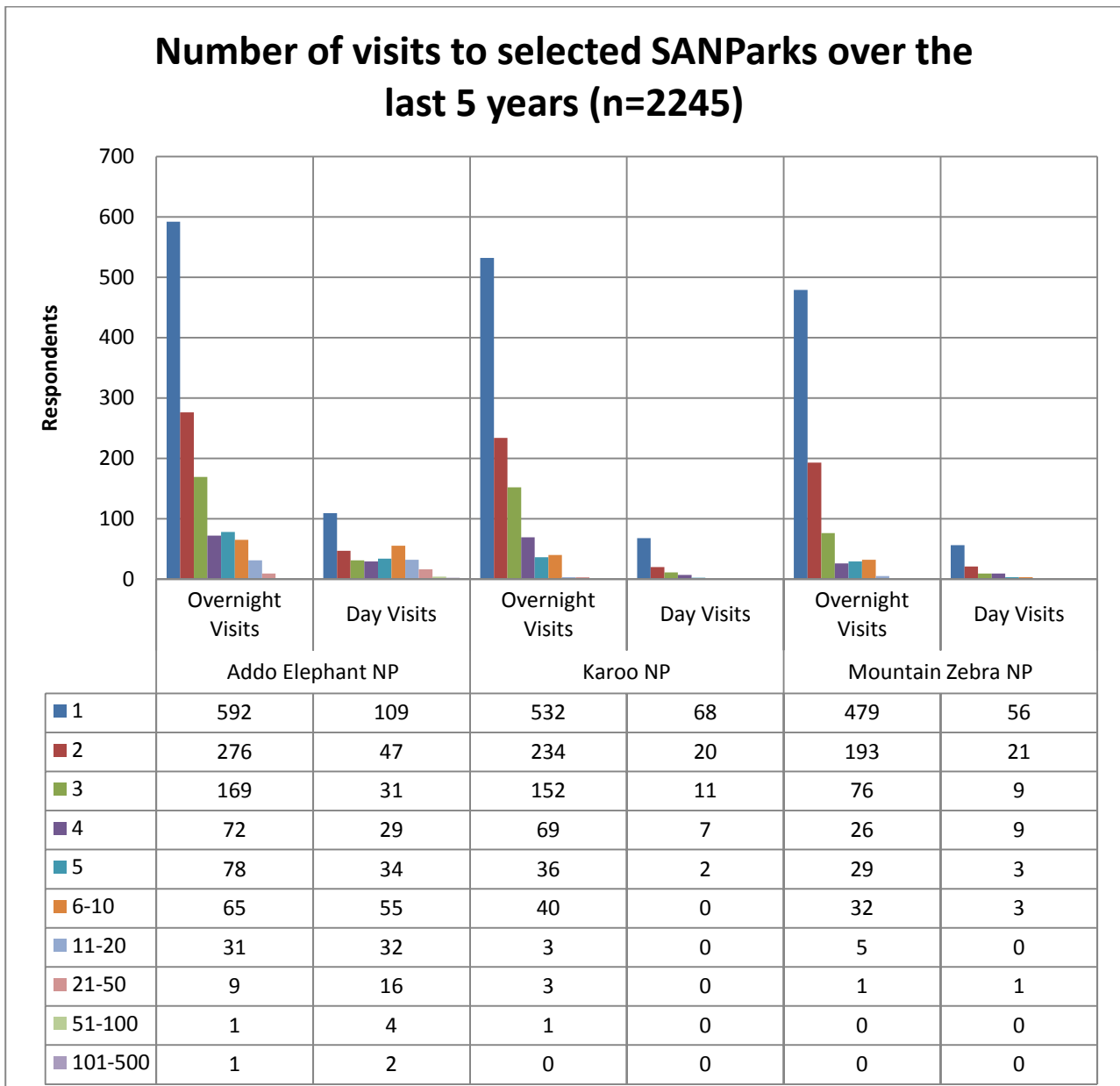
These results show that the respondents have been to the selected SANParks at least once and represent the past and current visitors. These respondents will be able to provide correct and relevant data regarding their wants and desires from a nature-based tourism product. To determine specific needs and wants of future visitors of the parks, respondents were asked to select a park within SANParks which they would prefer to visit next and their reason for the specific selection. The results show that 706 (33.3%) of the respondents would want to visit Kruger National Park for their next visit mainly because it is a known wildlife watching destination, because they go every year as tradition, or because they simply 'love' it there. Addo Elephant National Park was chosen by 141 (6.6%) respondents as their preferred SANPark for their next visit, 92 (4.3%) respondents would like to go to Mountain Zebra National Park, and 67 (3.2%) respondents prefer Karoo National Park.

Figure 6.8 presents these results showing that all three selected SANParks are considered within the top ten chosen parks for their preferred next visit.

Figure 6.8: Preferred park for the next visit within SANParks

Preferred SANPark for next visit (n=2122)

Park	Value
Kruger NP	706
Kgalagadi Transfrontier Park	593
Addo Elephant NP	141
Mountain Zebra NP	92
Mapungubwe NP	78
Tankwa Karoo NP	70
|Ai-|Ais/Richtersveld Transfrontier Park	68
Karoo NP	67
Mokala NP	56
Marakele NP	44
Garden Route NP (Knysna, Tsitsikamma, Wilderness)	43
Augrabies Falls NP	29
Namaqua NP	27
West Coast NP	27
Golden Gate Highlands NP	25
Camdeboo NP	20
Table Mountain NP	14
Bontebok NP	14
Agulhas NP	8

It is of great significance or value to know the importance of the various desires of visitors to a national park. The desires very often provide the reason for travelling thus the respondents were asked to indicate the likelihood of various attractions being their reason or travel motivation when visiting a park. The respondents were asked to evaluate a list of 23 statements describing different motives or reasons why people generally visit national parks. Evaluation took place through the indication of how likely the respondents would generally consider the statements as a motive or reason for them personally when visiting any park. Figure 6.9 represents the results by displaying the top ten motives of 2023 respondents and the reasons why they would very likely visit a national park. The majority (75.7%) of the respondents considered game viewing as a "very likely" motive for visitation and 75.2% of the respondents indicated nature in general. Relaxation (59.8%), photography (53.1%), and escape/solace (49.3%) follow respectively. Viewing the "Big 5" or iconic animals as a reason to visit a park was chosen by 884 (43.7%) respondents placing it in sixth place. Conservation efforts (38.1%), exploring new destinations (34.5%), remoteness (33.9%), and education or learning about nature (29.7%) respectively are also considered to "very likely" be motives for visiting a park. The least popular motives, each claiming less than 5% representation of respondents include status (4.8%), social contact (2.5%), and events (1.8%).

Figure 6.9: Top motives or reasons for visiting a national park

Top 10 motives for National Park visitation
(n=2023)

Game viewing — 1532
Nature — 1520
Relaxation — 1210
Photography — 1075
Escape / Solace — 997
Viewing the "Big 5" / Iconic animals — 884
Conservation efforts — 771
Explore a new destination — 698
Remoteness — 685
Education/learning about nature (fauna & flora) — 594

Legend:
- Very likely
- Likely
- Neutral
- Unlikely
- Very unlikely
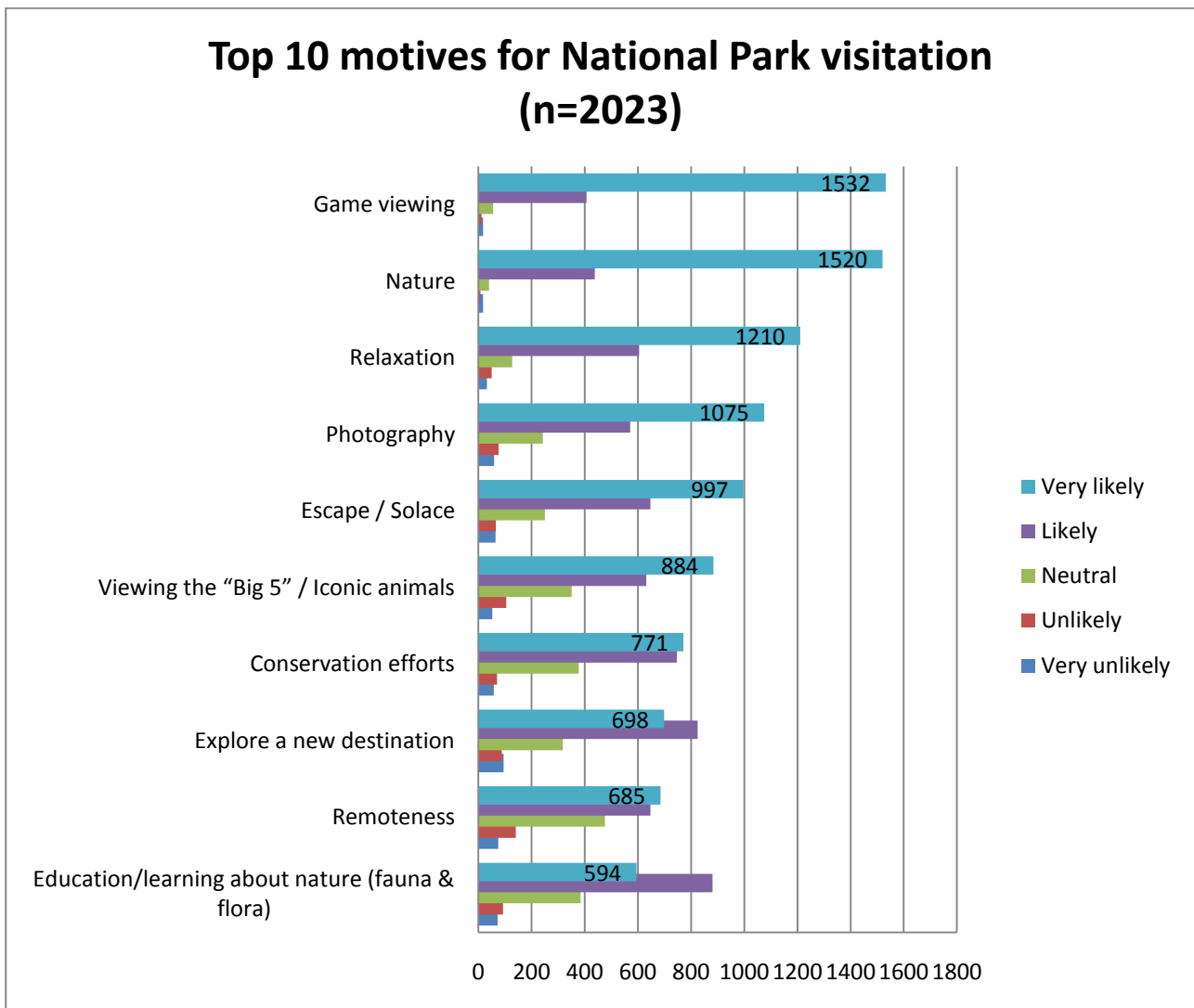
6.2.3 The relative importance of iconic animals in relation to other attractions

A deeper and more detailed analysis of the relative importance of iconic animals in relation to other attractions was done by asking the respondents to choose the five most important aspects from a list which they believe would attract them to a specific selected SANPark, thus highlighting the unique attractiveness of each of the parks. The aspects were then ranked according to the frequencies by which each aspect was selected. The Kruger National Park was added to the three selected SANParks to serve as a bench mark for the attractiveness of iconic animals as it is already an established and known "Big 5" destination. A total of 1967 respondents indicated that there are certain aspects that are more important than others with regards to the attractiveness of selected SANParks. The

results in Figure 6.10 show that viewing the "Big 5" or iconic animals is important in terms of the attractiveness in all the selected SANParks and it falls within the top 10. In the Kruger National Park viewing the "Big 5" or iconic animals is the fourth most important aspect as 1195 respondents (60.8%) indicated that it is important with regards to the attractiveness of the specific park. In Addo Elephant National Park, 781 respondents (38.8%) specified that viewing the "Big 5" or iconic animals is important placing it as the fifth most important aspect. A total of 343 respondents (17.4%) selected viewing the "Big 5" or iconic animals in Mountain Zebra National Park putting it in sixth place, and 345 respondents (17.5%) selected it for Karoo National Park but placing it only in eighth place in this specific park.

Figure 6.10: Top 10 aspects in terms of the attractiveness of selected SANParks
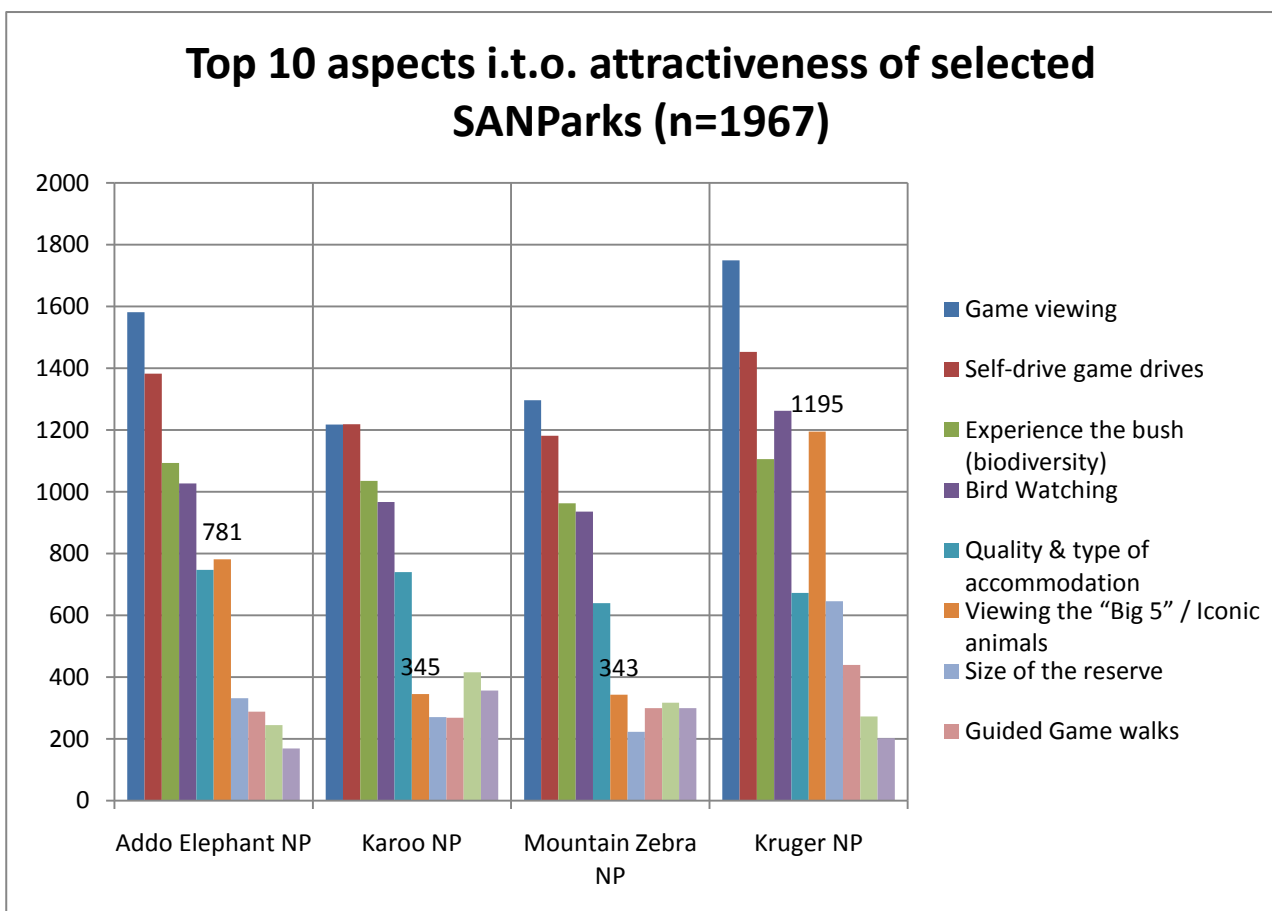
The overall importance of these aspects is depicted in Figure 6.11 and focuses on the frequencies of each attractiveness aspect in the four parks. The results show that the most important aspect with regards to the attractiveness of a park is game viewing, followed by self-drive game drives, experiencing the bush (biodiversity), bird watching, and the quality

and the type of accommodation. Viewing the "Big 5" or iconic animals is considered the sixth most important aspect with regards to the attractiveness of the parks overall.

Figure 6.11: The overall importance of aspects in terms of the attractiveness a national park
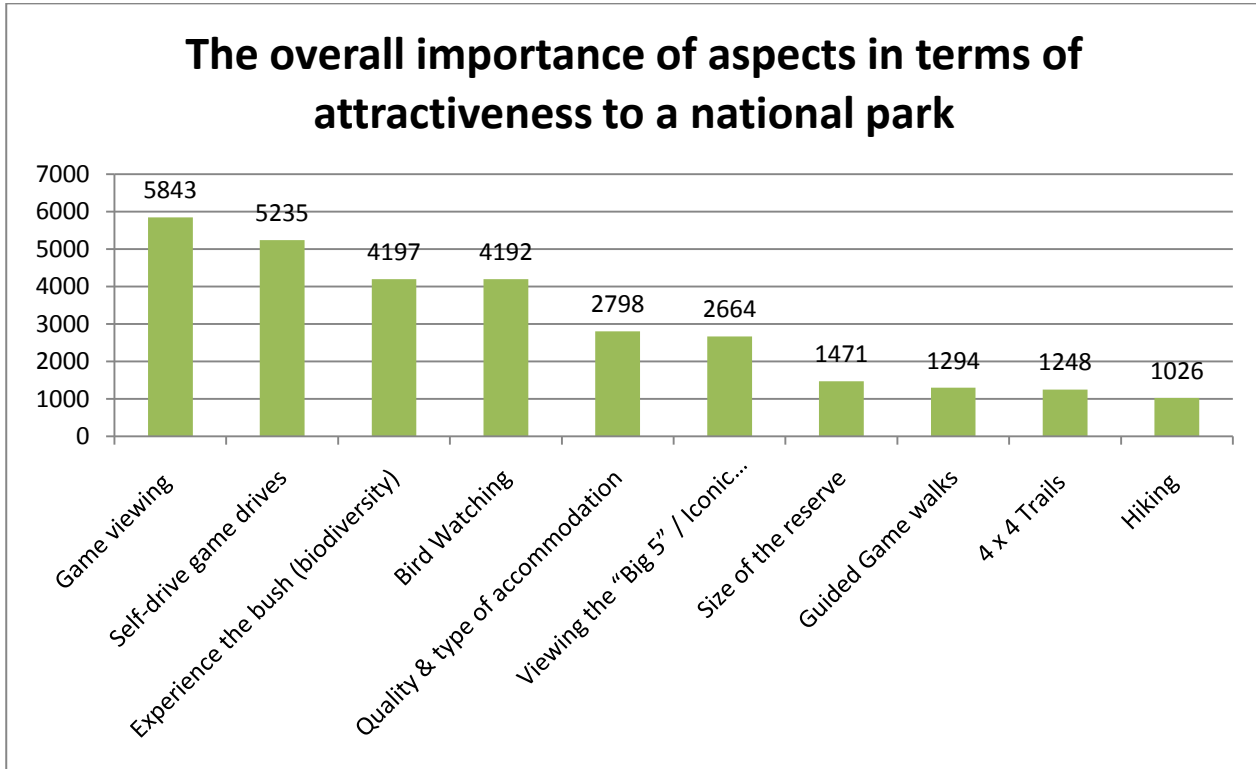
A further analysis was conducted to determine if there is a difference between the international and domestic visitors with regards to the relative importance of iconic animals and their wants and desires. Figure 6.12 represents the top ten motives from 170 international respondents of the reasons why they would very likely visit a park. The top reason for visiting a park is game viewing as it received an average rating of 4.78. Nature is in second place close after game viewing with an average rating of 4.76. Viewing the "Big 5" or iconic animals as a very likely reason to visit a park was chosen by 52.9% of the respondents receiving an average of 4.29. Photography (4.26), conservation efforts (4.11), education/learning about nature (4.06), escape or solace (3.95), exploring a new destination (3.94), relaxation (3.89), and quality of accommodation (3.76) respectively are also considered to be "very likely" motives for visiting a park. The least popular motives, each claiming less than 5% representation of respondents agreeing that they are "very likely" motives include status (2.14), and events (2.02), and all inclusive packages (1.98).

From these results it shows that international visitors consider viewing the "Big 5" or iconic animals to be the third likeliest motive or reason for visiting a national park as opposed to the domestic visitors who consider it sixth likeliest.

Figure 6.12: Top 10 reasons for international visitation to National Parks
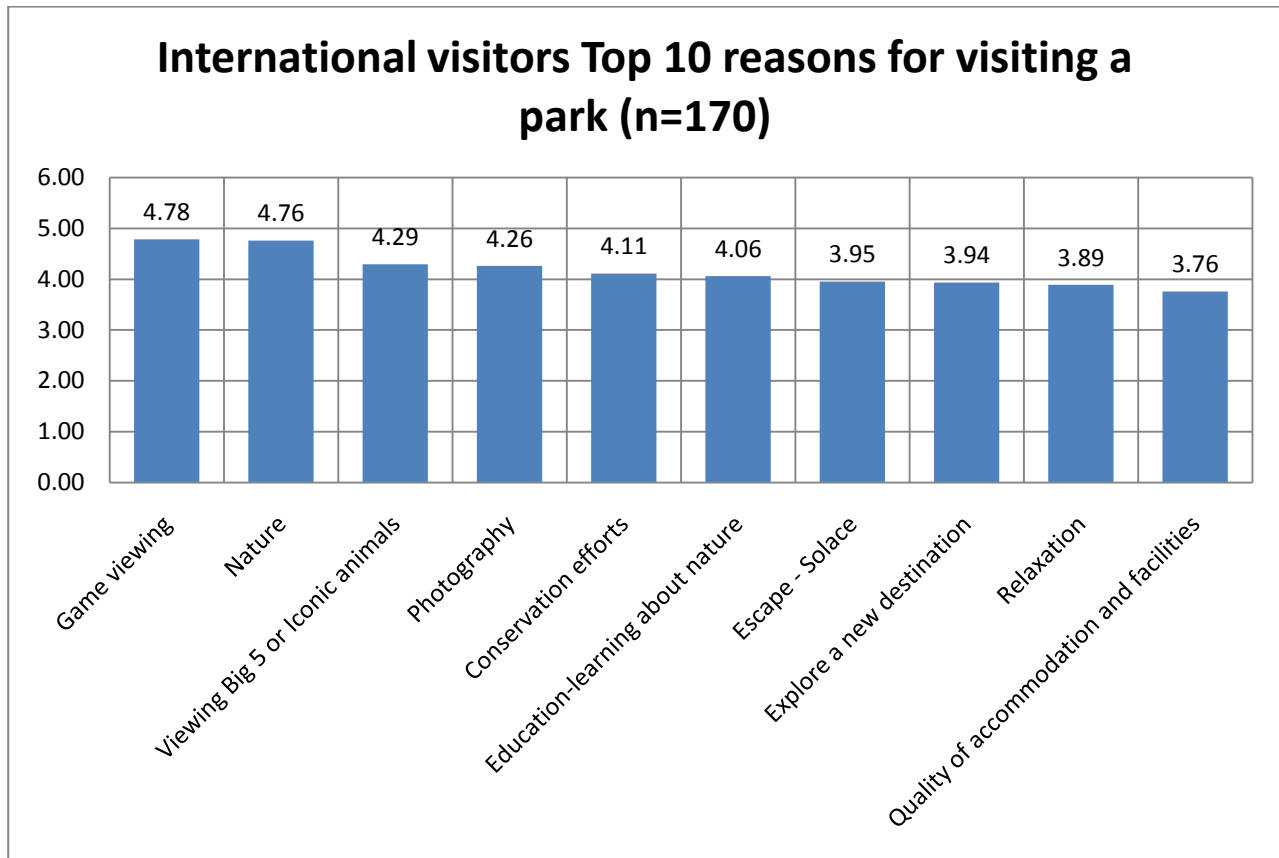
When assessing the international visitors' results of the separate parks with regard to relative importance of iconic animals it becomes evident that in Addo Elephant National Park, viewing the "Big 5" or iconic animals is the fifth most important aspects as 63 respondents (37.1%) selected that it is important with regards to the attractiveness of the specific park. A total of 18 respondents (10.6%) selected viewing the "Big 5" or iconic animals in Mountain Zebra National Park putting it in eleventh place, and 21 respondents (12.4%) selected it for Karoo National Park placing it only in twelfth place in this specific park. When looking at Kruger National Park 103 respondents (60.6%) indicated that viewing the "Big 5" or iconic animals is important. Comparing the international results to the domestic or overall results it reveals that in Addo Elephant National Park there is no difference with regards to the importance as they both placed in fifth place. It shows

though that in Mountain Zebra and Karoo National Park viewing the "Big 5" or iconic animals is less important for international visitors as it was placed twelfth as opposed to eighth and eleventh as opposed to sixth respectively. Results for the Kruger National Park show that viewing the "Big 5" or iconic animals is more important for international visitors as they consider it the third most important aspect when visiting the park as opposed to fourth from the domestic market.

Assessing the aspect 'viewing the "Big 5" or iconic animals' in more detail a further distinction was made between the importance of the individual iconic animals. The respondents were asked to rate the importance of each individual animal listed and to further indicate which animal they always look for when visiting a national park accompanied with the reason for their choice. The results in Figure 6.13 show that the leopard is most sought after and is considered extremely important to view in national parks by 887 respondents (48.3%), closely followed by the wild dog, which is considered extremely important to view by 849 respondents (46.2%), and the cheetah by 814 respondents (44.3%). Buffalo, giraffe and hippo are considered the least sought after as only 278 (15.1%), 263 (14.3%), and 225 (12.4%) respondents respectively consider them extremely important to view in national parks. A total of 790 respondents also indicated that other animals besides the ones listed in Figure 6.13 are considered important. The results indicate that 94 respondents mentioned they consider birds, specifically larger raptor birds important, 91 respondents pointed out that hyenas, spotted and brown, are important, followed by 69 respondents stating that sable or roan antelope are important closely followed by mixed types of antelopes. Other animals or aspects mentioned were cats in general including jackals, foxes and caracals; smaller creatures like the mongoose, tortoise, chameleon and dassies; rare and endangered species; zebras and badgers.

Figure 6.13: The importance of the individual iconic animals in national parks

Importance of individual iconic animals (n=1837)

Animal	Value
Leopard	887
Wild dog	849
Cheetah	814
Rhino	722
Lion	655
Elephant	417
Buffalo	278
Giraffe	263
Hippo	225
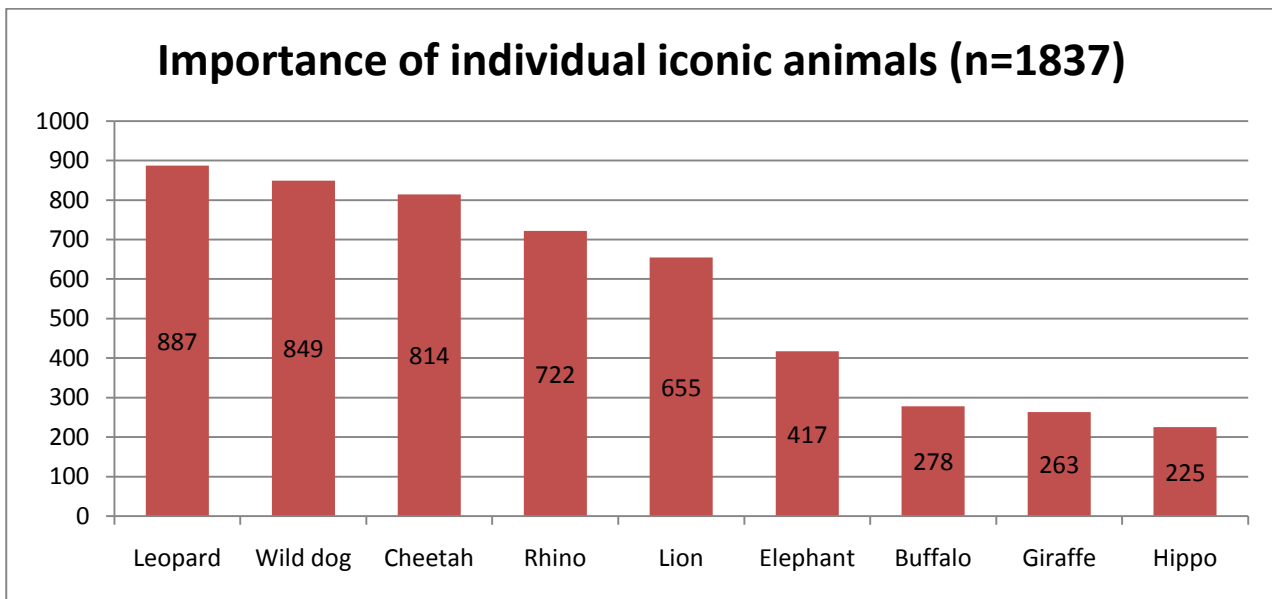
Furthermore the respondents were asked to disclose which animal they always look for when visiting a national park and the reason they want to see that animal specifically. Figure 6.14 shows that 457 respondents indicated that they like to look for a leopard when visiting a national park making it the most sought after animal to view. The most mentioned reasons were that they are rare, scarce and elusive animals, which are very difficult to spot thus always presenting a challenge to find them, making it the most difficult to spot of the "Big 5". Viewing a leopard is also attractive as they are considered beautiful, majestic and special animals, which have not been seen by many of the respondents, is considered a favourite animal, interesting to observe and great for photography. Lions are the second most sought after animal as indicated by 263 respondents. The main reasons provided were that lions are considered the king of the jungle and the most iconic animal of the bush. They have interesting and impressive behaviour patterns, which provides for an exciting and adrenalin filled experience, and they are generally considered the top predator being vibrant, beautiful, majestic, fascinating, and charismatic in nature. A total of 148 respondents indicated that wild dogs are something they look for when visiting a park mainly because they are rare, seldom seen in the wild, endangered and threatened, unique, truly magnificent, and they have an interesting behaviour and social structure that is not seen in any other wild animal species. Elephants were also considered a popular animal but many respondents (198) indicated that they do not look for a specific animal, but rather go for the collective and the experience including the environment with all the various species.

Figure 6.14: Specific animals preferred for viewing at a national park

Figure 6.14 Specific animal preference chart
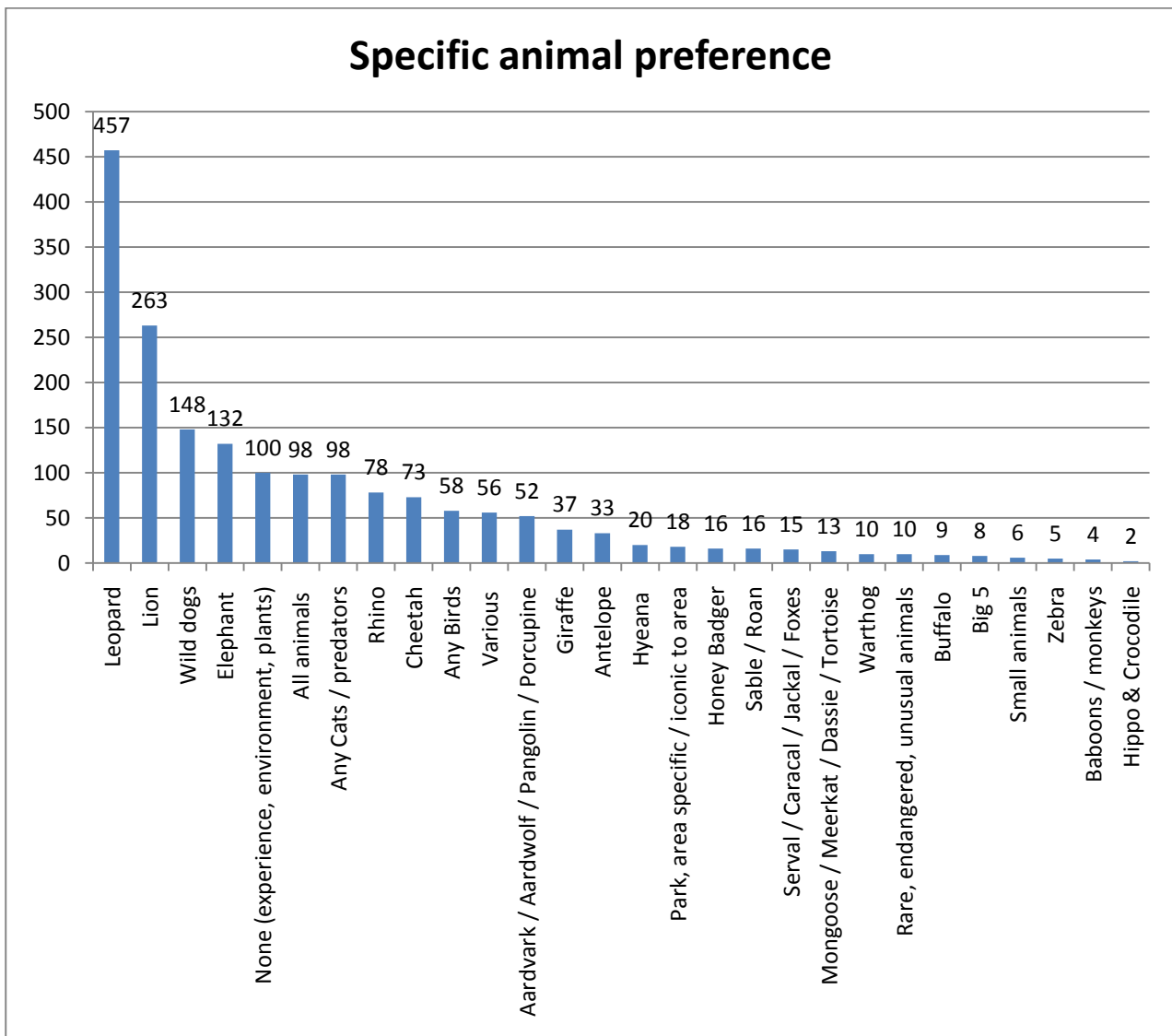
6.2.4 The effect of iconic animals on visitor numbers

To determine the relationship between the visitor numbers to the selected parks and the presence of the iconic animals an analysis was done on the respondents awareness regarding the presence of iconic animals, if they would consider visiting a park where no iconic animals are present, if they would visit a park after the introduction and/or reintroduction of iconic animals into a park that previously did not have them, and finally if they would visit the selected SANParks specifically to see the "Big 5" or iconic animals.

Figure 6.15 and Figure 6.16 show the results of the respondent's perception of the presence of iconic animals in selected SANParks. The respondents were reminded that

first impressions are important as the awareness level is tested. The majority of the respondents think that Addo Elephant National Park holds Elephants (98,0%), Rhinos (66.9%), Buffalos (77.6%), Lions (77.3%) and Leopards (58.1%), whereas only 3.0% of the respondents believe that no iconic animals are present in the park. When looking at Karoo National Park only 3.1% of the respondents think that Elephants are present, 30.3% perceive the presence of rhinos, 21.0% Buffalo, 60.2% lion, 42.4% leopard. The results also show that around 3.4% of the respondents believe that Elephants are present in Mountain Zebra National Park, 30.7 % Rhinos, 42.2% Buffalo, 36.6% Lions, 41.4% Leopards, 14.1% no "Big 5", and 23.1% really don't know. The perception of the presence of the various animals in Kruger National Park is relatively constant as between 97 and 98% of the respondents believe that all the animals (elephant, rhino, buffalo, lion and leopard) are present in the park. Only 3.4% of the respondents believe that no "Big 5" are present in the Kruger National Park, and 0.7% really don't know.

Figure 6.15: The awareness of the presence of "Big 5" or iconic animals in selected SANParks

Awareness of "Big 5 " or iconic animals (n=1944)

	Addo Elephant NP	Karoo NP	Mountain Zebra NP	Kruger National Park
Elephant	1905	60	67	1900
Rhino	1300	589	596	1891
Buffalo	1509	409	820	1895
Lion	1503	1171	711	1894
Leopard	1129	824	804	1885
No "Big 5"	59	266	274	67
I really don't know	40	338	450	13
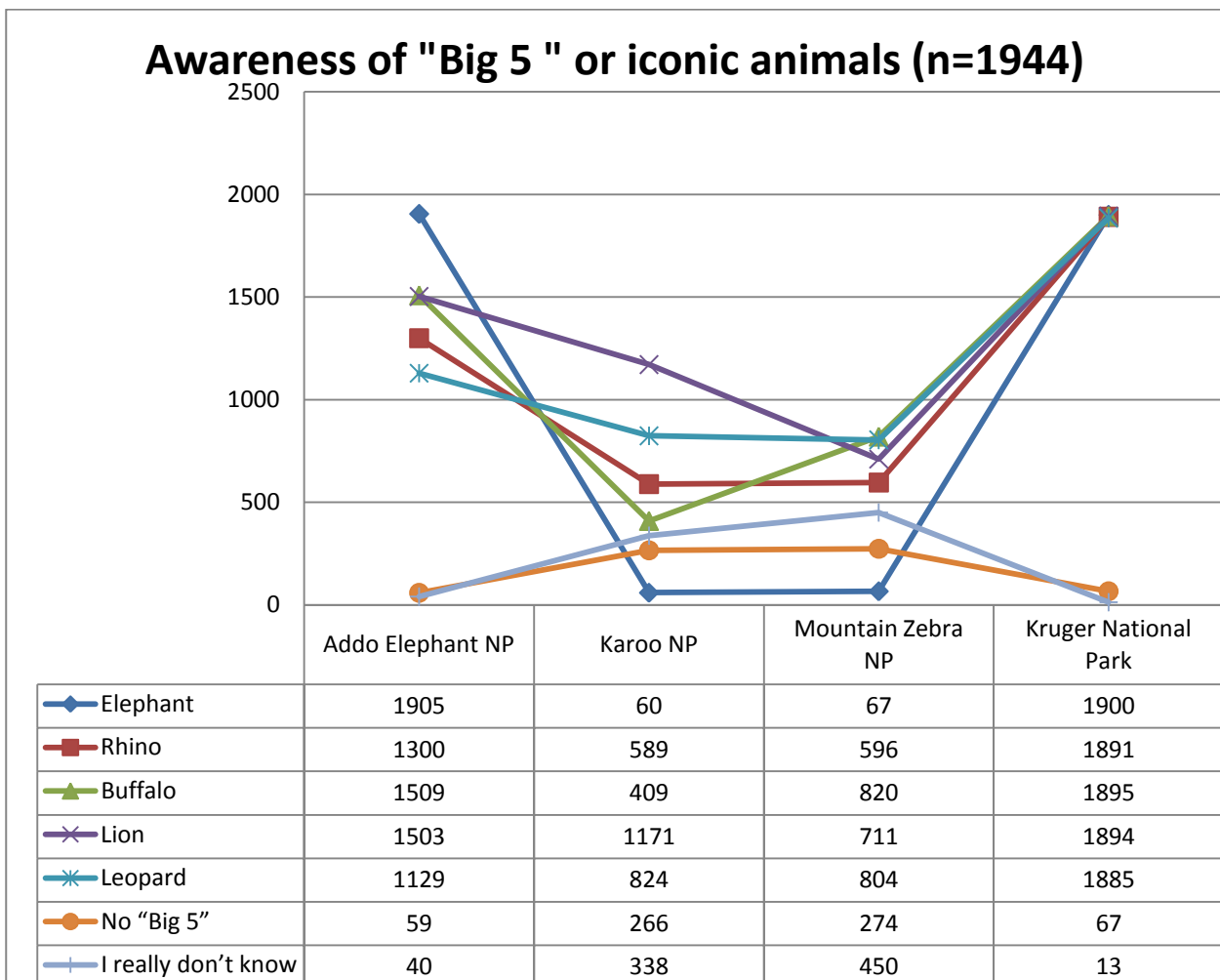
Figure 6.16: Perception of the presence of the "Big 5" or iconic animals
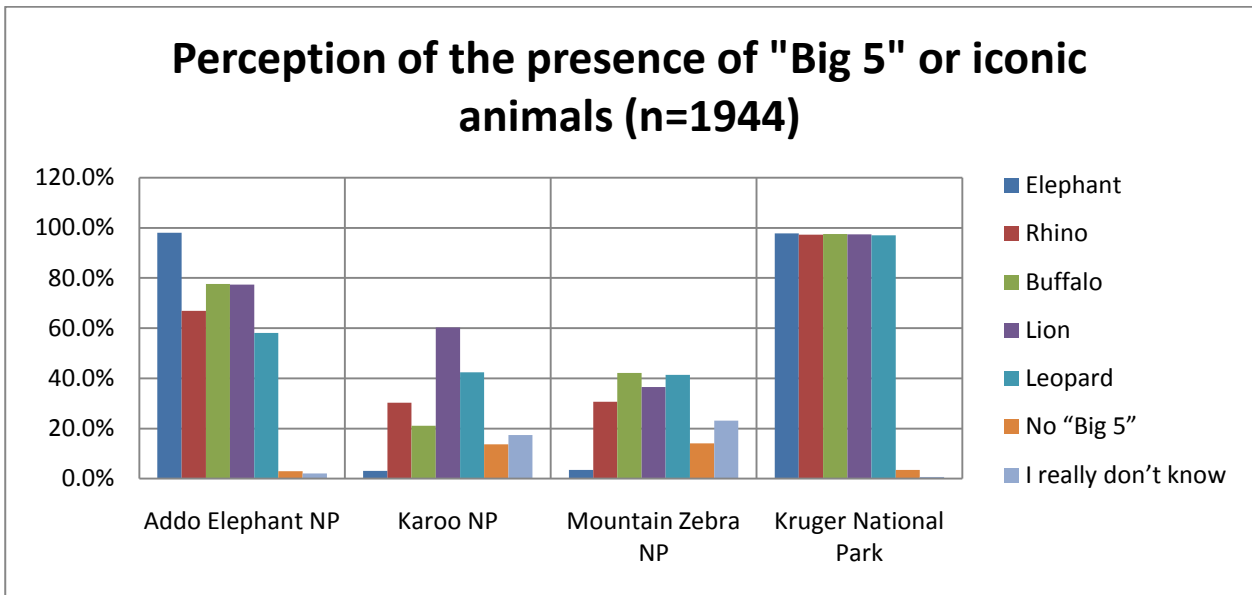
Furthermore the respondents were asked to point out if they would visit a park after the introduction and/or reintroduction of the iconic animals into a park which currently does not have iconic animals. The majority (64.9%) of respondents said yes and 35.1% respondents said no. Assessing iconic animals as a necessary minimum requirement for a park visitation, the results show that most (88.0%) respondents would go to a park where no iconic animals are present and that only 12% of the respondents specified that they would not visit a park that hold no iconic animals as displayed in Figure 6.17.

Figure 6.17: Visitation to park where no iconic animals are present
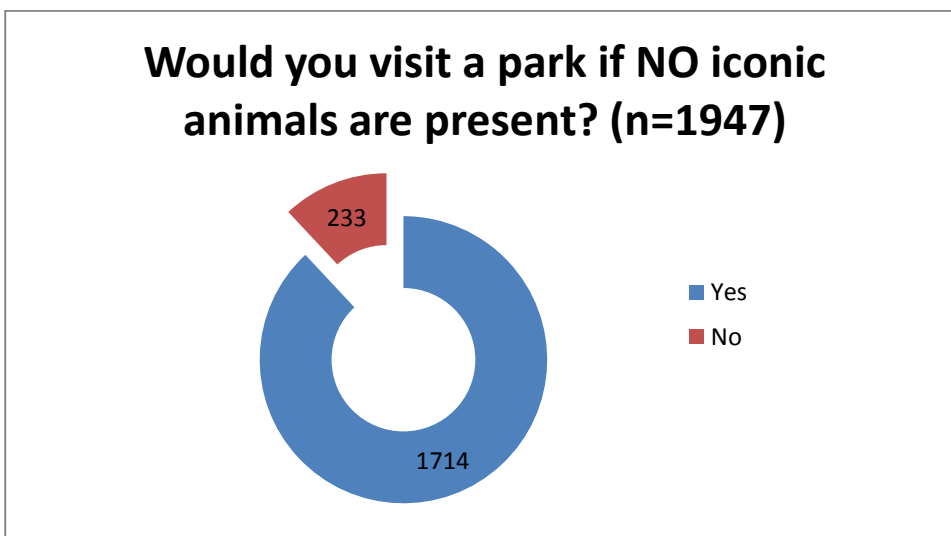
Reviewing the relationship between the visitor numbers and the presence of iconic animals in the selected SANParks, respondents were asked to indicate if they would choose to visit Addo Elephant, Karoo and Mountain Zebra National Park specifically to see the "Big 5", and to elaborate with a reason why they say so. Figure 6.18 illustrates that the majority of the respondents would not specifically visit any of the three selected SANParks to view the "Big 5". Around 36,6% (686) of the respondents mentioned that they would go to Addo Elephant National Park specifically to see the "Big 5", 17.6% (332) selected Mountain Zebra National Park, and only 16.7% (316) choose Karoo National Park to specifically view iconic animals.

Figure 6.18: Visitation to selected SANParks specifically to see the "Big 5"
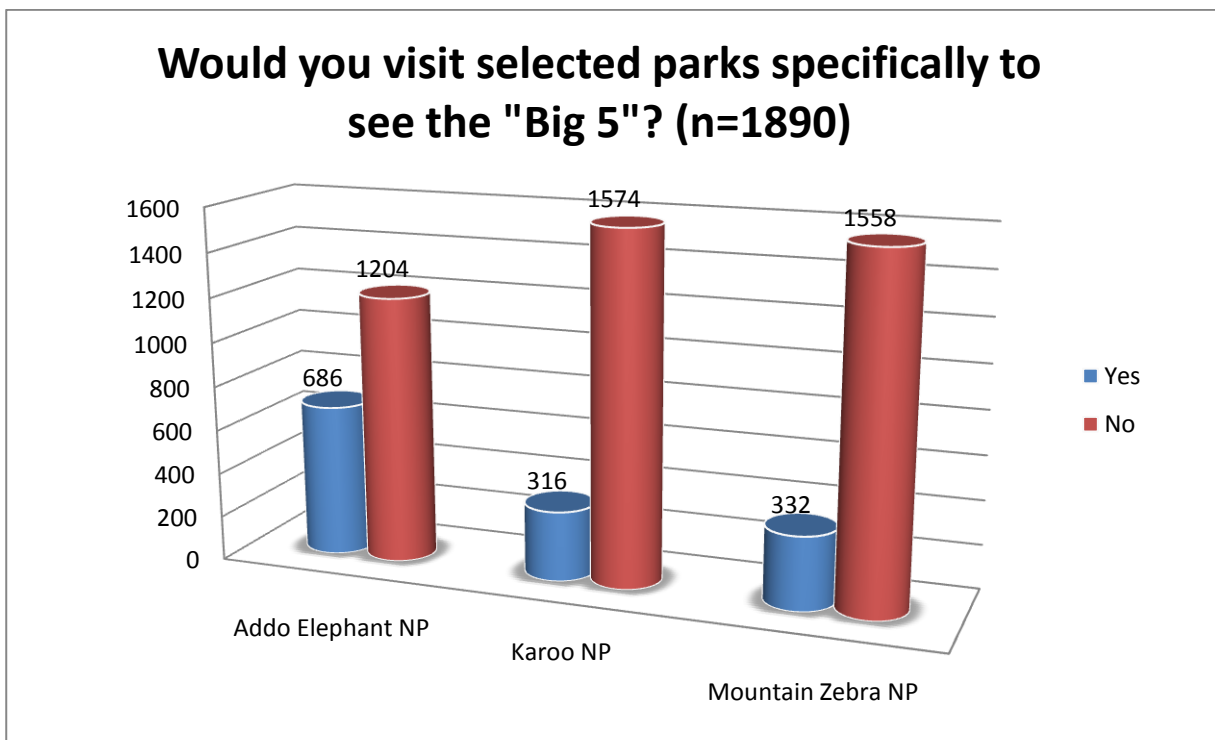
6.2.5 The willingness to pay for the presence of iconic animals

To investigate the financial considerations and to determine their willingness to pay for the presence of iconic animals it was first established how much and on what the respondents are spending their money currently. Thereafter the respondents were asked if they would increase their spending for the presence of iconic animals, by how much they would increase it and specifically in what categories they would be willing to spend more.

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The results indicated that the respondents spend an approximate average of R9554.00 per person for the whole trip (including all costs) when visiting a park as shown in Table 6.3 by the mean.

Table 6.3:   Descriptive statistics for approximate average spent per person for visit

	N	Median	Mean	Std Dev	Minimum	Maximum
How much spend per person for visit	1530	4000	9553.91	57111.76	1	1800000

The respondents separated the average spent per person into the various listed categories which demonstrated that most of the money spent is allocated to accommodation representing an average of 39.2% of the approximate total amount. Figure 6.19 displays the results showing that on average 25.7% is spent on transport to the park, 15.6% on food and beverages, 9.2% on transport within the park, 5.4% on entrance/conservation fees, and only 3.4% on activities.

Figure 6.19: Approximate percentage of total amount spent on categories
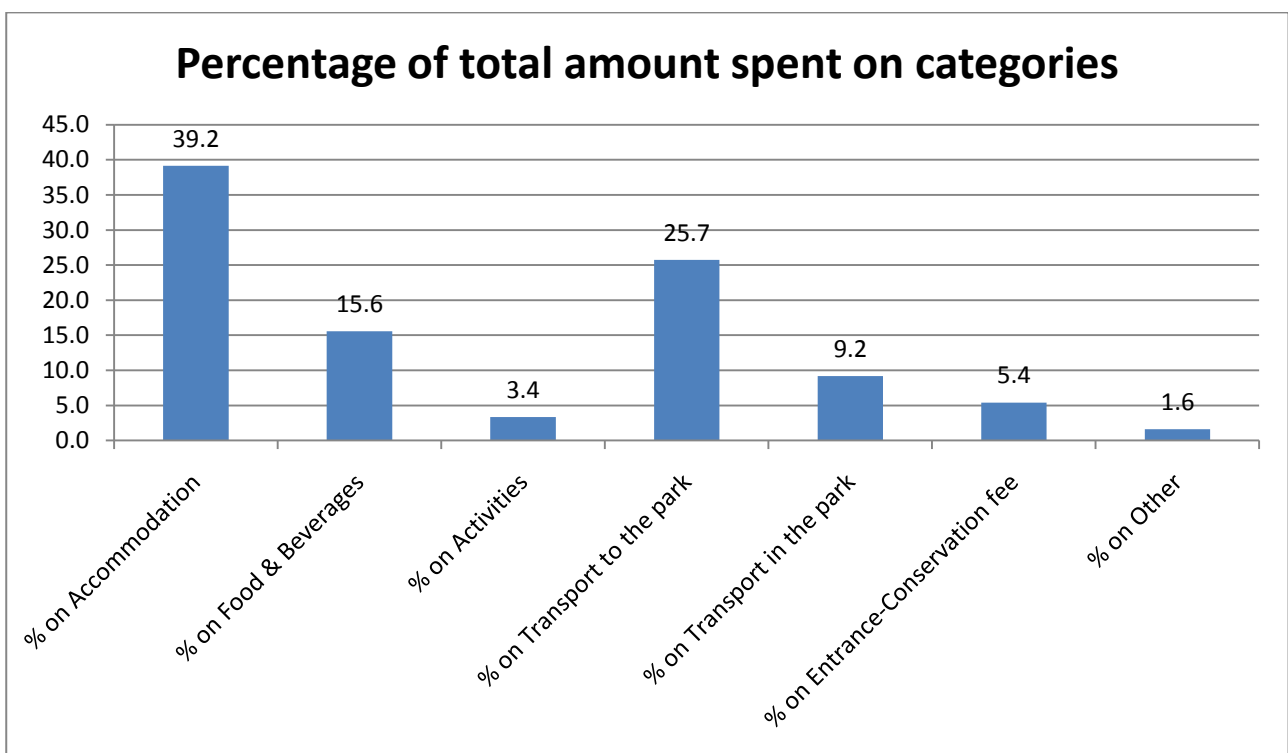
Respondents (199) also pointed out that an average percentage of their money (1.6%) is also spent on other categories. Other categories mentioned by the respondents included

souvenirs, a wildcard, equipment, en route accommodation, clothing, communication and a house sitter. Some (32) respondents indicated that the question was difficult to answer; that their spending is different every time depending on the length of stay, the time of year as well as the specific park; that they were unsure or unable to answer the question; or that they are unwilling to answer to question as they find it irrelevant.

Figure 6.20 depicts whether or not respondents would pay more to visit a park where the "Big 5" or iconic animals are present as opposed to a park in which they are absent. About 56% of the respondents would not spend more to visit a park with the "Big 5" or iconic animals present whereas 44% of the respondents indicated that they would indeed pay more.

Figure 6.20: Visitors prepared to spend more to visit a park with "Big 5" or iconic animals
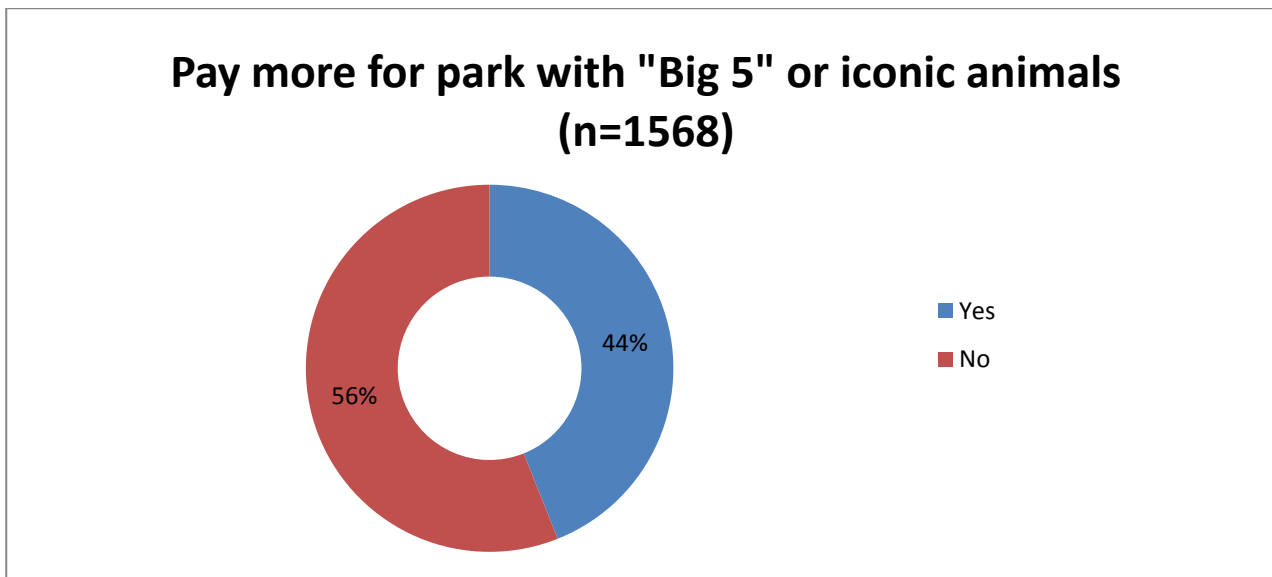
The 689 respondents that acknowledged their willingness to pay more were requested to indicate the percentage of how much more on average they would be prepared to spend per category. The 674 respondents that did answer this question mentioned that they would be prepared to pay an average of 33.9% more on accommodation, 16.5% on transport to the park, 13.6% on entrance/conservation fees, 10.7% on food and beverages, 9.1% on transport within the park, and 6.9% on activities. A total of 23 respondents also indicated that they would be prepared to spend 2.0% more on other things like the infrastructure (roads, camps, and shops), local community support, variety of animals and conservation contribution.

- 100 -

Figure 6.21: Percentage of how much more visitors are prepared to spend per category
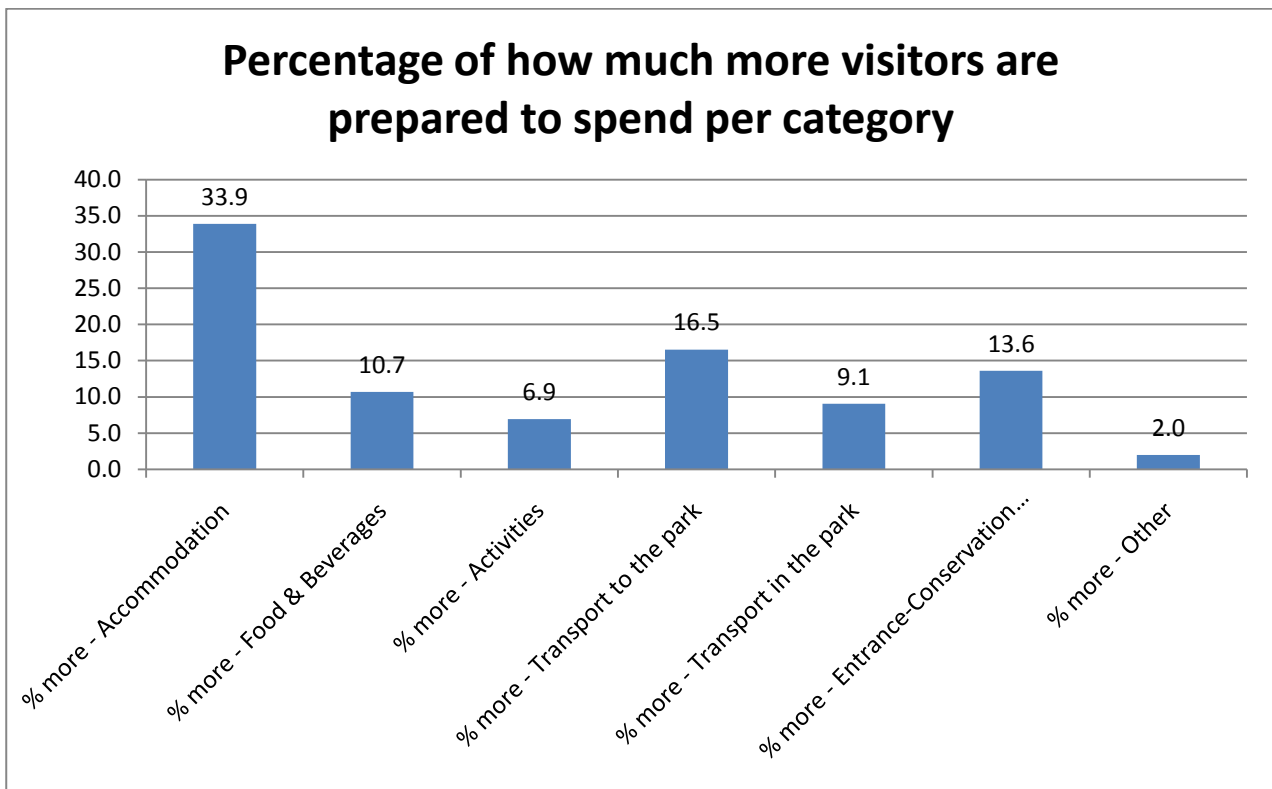
6.3 HYPOTHESES TESTS

The hypotheses which are to be tested in this study becomes evident from the following research question.

RQ: Does the presence of iconic animals in selected SANParks influence the visitor numbers, the type of visitors and their willingness to pay, by looking at the relative importance of iconic animals in relation to other attractions?

To test the theory within the phenomenon of the relative importance of iconic animals in relation to other attractions, four hypotheses have been formulated based on the research question and the outlined research objectives. The statistical results of the hypotheses tests are subsequently discussed below.

6.3.1 Hypothesis 1

The first hypothesis focused on the relative importance of iconic animals in relation to other attractions. To measure the two key constructs of this hypothesis and to investigate the relationship between the two variables various measurements were made by looking at the first three research objectives. The null and alternative hypotheses of H_1 are stated below.

> H_0: Iconic animals are not a greater attraction relative to other attractions in selected parks.
>
> H_1: Iconic animals are a greater attraction relative to other attractions in selected parks.

Table 6.4 shows the results of the Friedman ANOVA and Kendall Coefficient of Concordance test that was conducted to compare the variables that were measured in the dependent samples and to denote the average rank order correlation between them. The mean values of the reasons for visiting a park were ranked according to importance and are displayed in Table 6.5. The results indicate that the five most likely reasons for visiting a national park is nature followed by game viewing, relaxation, photography, and escape or solace.

Table 6.4: Results of ANOVA and Kendall Coefficient of Concordance

| Variable | Label | Friedman ANOVA and Kendall Coeff. of Concordance ANOVA Chi Sqr. (N = 2023, df = 22) = 19672.37 p =0.00000 Coeff. of Concordance = .44202 Aver. rank r = .44174 | | | |
		Average Rank	Sum of Ranks	Mean	Std.Dev.
Q4_1	Relaxation	17.12061	34635.00	4.438	0.843
Q4_2	Novelty (experience something new)	12.74839	25790.00	3.618	1.210
Q4_3	Escape / Solace	15.75853	31879.50	4.210	0.993
Q4_4	Status (destination image)	5.68932	11509.50	2.100	1.202
Q4_5	Education/learning about nature (fauna & flora)	14.02126	28365.00	3.906	0.989
Q4_6	Participation in recreation or leisure activities	8.41325	17020.00	2.773	1.217
Q4_7	Adventure	12.30376	24890.50	3.538	1.179
Q4_8	Hiking / Walking	10.31092	20859.00	3.167	1.228
Q4_9	Viewing the "Big 5" / Iconic animals	15.24320	30837.00	4.083	1.021
Q4_10	Culture	8.59046	17378.50	2.850	1.120
Q4_11	Nature	18.61196	37652.00	4.698	0.615
Q4_12	Game viewing	18.59071	37609.00	4.693	0.636
Q4_13	Social contact	6.13717	12415.50	2.280	1.094
Q4_14	Events	5.04474	10205.50	2.058	1.014
Q4_15	Photography	16.06476	32499.00	4.249	1.001
Q4_16	Quality of accommodation and facilities	12.93673	26171.00	3.712	0.965
Q4_17	Popularity of the parks	8.70440	17609.00	2.808	1.193
Q4_18	Explore a new destination	14.53707	29408.50	3.960	1.048
Q4_19	Location (accessibility)	12.94637	26190.50	3.682	1.075
Q4_20	Experience wildlife (active participation – eg. Elephant rides)	7.17845	14522.00	2.459	1.265
Q4_21	Remoteness	13.70588	27727.00	3.854	1.078
Q4_22	All inclusive packages	6.54474	13240.00	2.338	1.208
Q4_23	Conservation efforts	14.79733	29935.00	4.039	0.982

Table 6.5: **The ranking of mean importance scores for each reason why they visit a national park**

Mean importance scores for each reason - for ranking		
Variable	**Label**	**Mean**
Q4_11	Nature	4.698
Q4_12	Game viewing	4.693
Q4_1	Relaxation	4.438
Q4_15	Photography	4.249
Q4_3	Escape - Solace	4.210
Q4_9	Viewing Big 5 or Iconic animals	4.083
Q4_23	Conservation efforts	4.039
Q4_18	Explore a new destination	3.960
Q4_5	Education-learning about nature	3.906
Q4_21	Remoteness	3.854
Q4_16	Quality of accommodation and facilities	3.712
Q4_19	Location (accessibility)	3.682
Q4_2	Novelty	3.618
Q4_7	Adventure	3.538
Q4_8	Hiking or Walking	3.167
Q4_10	Culture	2.850
Q4_17	Popularity of the parks	2.808
Q4_6	Recreation or leisure activities	2.773
Q4_20	Active participation	2.459
Q4_22	All inclusive packages	2.338
Q4_13	Social contact	2.280
Q4_4	Status	2.100
Q4_14	Events	2.058

To further measure the relative importance of iconic animals as attraction in relation to other attractions, a Wilcoxon Matched Pairs Test, as an alternative to the t-test, was conducted to test the significance of variables by comparing "viewing the 'big5' or iconic animals" (Q4_9) to all the other variables. This procedure assumes that the variables under consideration were measured on a scale that allows the rank ordering of observations based on each variable (i.e. ordinal scale) and that allows rank ordering of the differences between variables. Table 6.6 displays the statistical results of the Wilcoxon Matched Pairs Test and shows that the p-values were smaller than 0.05 ($p < 0.05$) indicating that there is a significant difference between the relative importance of iconic animals and the other attractions. This suggests that H0 can be rejected in favour of H1 as there is a significant difference in the importance of attractions and the mean scores in

Table 6.5 show that iconic animals are considered a greater attraction than other attractions by showing higher levels than some attractions, but not all.

Table 6.6:   Statistical results of the Wilcoxon Matched Pairs Test

Pair of Variables	Wilcoxon Matched Pairs Test Marked tests are significant at p <.05000			
	Valid N	T	Z	p-value
Q4_9 & Relaxation	1215	222370.5	12.01557	0.000000
Q4_9 & Novelty (experience something new)	1394	291980.0	12.91700	0.000000
Q4_9 & Escape / Solace	1260	342362.5	4.24593	0.000022
Q4_9 & Status (destination image)	1778	35804.0	34.86861	0.000000
Q4_9 & Education/learning about nature (fauna & flora)	1341	368164.5	5.76295	0.000000
Q4_9 & Participation in recreation or leisure activities	1585	87859.0	29.66280	0.000000
Q4_9 & Adventure	1338	217807.0	16.27639	0.000000
Q4_9 & Hiking / Walking	1498	185166.5	22.46646	0.000000
Q4_9 & Culture	1558	77766.5	29.81034	0.000000
Q4_9 & Nature	1108	80471.0	21.28045	0.000000
Q4_9 & Game viewing	997	38917.0	23.07269	0.000000
Q4_9 & Social contact	1746	29350.5	34.79919	0.000000
Q4_9 & Events	1810	19327.0	35.98028	0.000000
Q4_9 & Photography	1160	271587.5	5.70454	0.000000
Q4_9 & Quality of accommodation and facilities	1385	302874.0	11.89116	0.000000
Q4_9 & Popularity of the parks	1531	60603.5	30.38859	0.000000
Q4_9 & Explore a new destination	1266	354773.5	3.55325	0.000381
Q4_9 & Location (accessibility)	1299	252248.0	12.56576	0.000000
Q4_9 & Experience wildlife (active participation – eg. Elephant rides)	1645	36728.5	33.22401	0.000000
Q4_9 & Remoteness	1360	365455.0	6.71566	0.000000
Q4_9 & All inclusive packages	1696	39986.0	33.68807	0.000000
Q4_9 & Conservation efforts	1254	378973.5	1.12804	0.259305

Question 5 identified the five most important aspects that would attract the respondents to each of the selected parks specifically. The results were ranked according to the most occurrences or frequencies for each aspect to determine if viewing the "Big 5" or iconic animals can be considered a more important aspect or attraction than other aspects in each selected SANPark separately. Table 6.7 displays the frequencies and percentages of the top ten aspects that were considered most important when assessing the reasons why respondents are attracted to Addo Elephant National Park specifically.

Table 6.7: Addo Elephant National Park's top 10 aspects of attractiveness

	Addo Elephant National Park	Frequency	Percent
1	Game viewing	1581	64.69
2	Self drive game drives	1382	56.55
3	Experience the bush	1093	44.72
4	Bird Watching	1027	42.02
5	Viewing "Big 5" Iconic animals	781	31.96
6	Accommodation	747	30.56
7	Size of the reserve	332	13.58
8	Guided Game walks	288	11.78
9	4 x 4 Trails	244	9.98
10	Guided Game drives	232	9.49

Table 6.8 displays the frequencies and percentages of the top ten aspects that are considered most important when assessing the reasons why respondents are attracted to Karoo National Park specifically.

Table 6.8: Karoo National Park's top 10 aspects of attractiveness

	Karoo National Park	Frequency	Percent
1	Self drive game drives	1219	49.88
2	Game viewing	1217	49.8
3	Experience the bush	1035	42.35
4	Bird Watching	967	39.57
5	Accommodation	740	30.28
6	4 x 4 Trails	415	16.98
7	Hiking	356	14.57
8	Viewing "Big 5" Iconic animals	345	14.12
9	Size of the reserve	270	11.05
10	Guided Game walks	268	10.97

Table 6.9 displays the frequencies and percentages of the top ten aspects that are considered most important when assessing the reasons why respondents are attracted to Mountain Zebra National Park specifically.

Table 6.9:   Mountain Zebra National Park's top 10 aspects of attractiveness

	Mountain Zebra National Park	Frequency	Percent
1	Game viewing	1296	53.03
2	Self drive game drives	1181	48.32
3	Experience the bush	963	39.4
4	Bird Watching	936	38.3
5	Accommodation	639	26.15
6	Viewing "Big 5" Iconic animals	343	14.03
7	4 x 4 Trails	317	12.97
8	Guided Game walks	299	12.23
9	Hiking	299	12.23
10	Animal Tracking	251	10.27

Table 6.10 displays the frequencies and percentages of the top ten aspects that are considered most important when assessing the reasons why respondents are attracted to Kruger National Park specifically.

Table 6.10: Kruger National Park's top 10 aspects of attractiveness

	Kruger National Park	Frequency	Percent
1	Game viewing	1749	71.56
2	Self drive game drives	1453	59.45
3	Bird Watching	1262	51.64
4	Viewing "Big 5" Iconic animals	1195	48.9
5	Experience the bush	1106	45.25
6	Accommodation	672	27.5
7	Size of the reserve	646	26.43
8	Guided Game walks	439	17.96
9	Guided Game drives	306	12.52
10	4 x 4 Trails	272	11.13

All the tables above show results that viewing the "Big 5" or iconic animals are considered a greater attraction relative to other attractions in the selected SANParks specifically. It is considered a greater attraction than some but not all, meaning that viewing the "Big 5" or iconic animals is not the greatest attraction but falls within the top 10 attractions of all the selected SANParks.

6.3.2   Hypothesis 2

The second hypothesis focused on the possible increase in visitor numbers as a result of the presence of iconic animals in the selected SANParks. The null and alternative hypotheses of H_2 are stated respectively below.

H_0:   Visitor numbers will not increase as a result of the presence of iconic animals in selected parks.

H_2:   Visitor numbers will increase as a result of the presence of iconic animals in selected parks.

The cross tabulation between question 6, asking respondents if they would visit a park after the introduction of iconic animals, and question 9, asking respondents to indicate if they visit the three selected SANParks specifically to see the "Big 5" helped establish the relationship between them.

A Chi-square test has proven the relationship to be significant as the p-value is smaller than 0.0001 (p<0.0001). The significant difference suggests that the null hypothesis (H_0) can be rejected in favour of the alternative hypothesis (H_1). The possible increase in visitor numbers is the difference between the respondents that indicated that they do not visit Addo Elephant National Park specifically to see the "Big 5" but would visit a park after the introduction of iconic animals (661 respondents), and the respondents that indicated that they do visit Addo Elephant National Park to see the "Big 5" but would not visit a park after the introduction of iconic animals (125 respondents). This thus means that the possible increase in visitor numbers to Addo Elephant National Park as a result of the presence of iconic animals are 661 – 125 = 536 respondents.

Table 6.11: Original statistical results of cross-tabulation for Addo Elephant National Park

Addo Elephant National Park				
Do you specifically visit the park to see the "Big 5"?	Would you visit a park after iconic animals are introduced?			
	Yes	No	Total	
Yes	561	**125**	686	Freqency
	31.106	56.903		Cell Chi-square
	29.68	6.61	36.3	Percent
	81.78	18.22		Row percent
	45.91	18.71		Column percent
No	**661**	543	1204	
	17.723	32.422		
	34.97	28.73	63.7	
	54.9	45.1		
	54.09	81.29		
Total	1222	668	1890	
	64.66	35.34	100	

Further analysis was done to see if the relationship between the visitor numbers and the presence of iconic animals is strong or weak. The phi coefficient is a measure of association derived from the chi-square. The phi coefficient of 0.2704 stipulates that the relationship is not very strong as $\varphi < 0.3$.

To determine if there is a possible increase in visitor numbers in Karoo National Park the same statistical procedures were followed as discussed above. The p-value for the chi-square was smaller than 0.0001 suggesting that H_0 can also be rejected here. As indicated in Table 6.12 the possible increase in visitor numbers is 931 – 25 = 906. This means that the visitors to Karoo National Park would increase with 906 people with the presence of iconic animals. The phi-coefficient of 0.2571 < 0.3, which indicates that the relationship between the visitor numbers and the presence of iconic animals in Karoo National Park is low.

Table 6.12: Original statistical results of cross-tabulation for Karoo National Park

Karoo National Park				
Do you specifically visit the park to see the "Big 5"?	Would you visit a park after iconic animals are introduced?			
	Yes	No	Total	
Yes	291	**25**	316	Freqency
	36.78	67.283		Cell Chi-square
	15.4	1.32	16.72	Percent
	92.09	7.91		Row percent
	23.81	3.74		Column percent
No	**931**	643	1574	
	7.384	13.508		
	49.26	34.02	83.28	
	59.15	40.85		
	76.19	96.26		
Total	1222	668	1890	
	64.66	35.34	100	

When looking at Mountain Zebra Park, the p-value of the chi-square also indicated a significant difference as $p<0.0001$. This specifies that the H_0 can be rejected and the H_2 can be accepted. As evident in Table 6.13 the possible increase in visitor numbers to Mountain Zebra National Park is $921 – 31 = 890$. The relationship between the visitor numbers and the presence of iconic animals is not very strong as $\varphi = 0.2511$ which is lower than 0.3.

Table 6.13: Original statistical results of cross-tabulation for Mountain Zebra National Park

Mountain Zebra National Park				
Do you specifically visit the park to see the "Big 5"?	Would you visit a park after iconic animals are introduced?			
	Yes	No	Total	
Yes	301	**31**	332	Freqency
	34.729	63.532		Cell Chi-square
	15.93	1.64	17.57	Percent
	90.66	9.34		Row percent
	24.63	4.64		Column percent
No	**921**	637	1558	
	7.4006	13.538		
	48.73	33.7	82.43	
	59.11	40.89		
	75.37	95.36		
Total	1222	668	1890	
	64.66	35.34	100	

6.3.3 Hypothesis 3

The third hypothesis tried to determine if the type of visitor of the selected SANParks would change with the introduction of iconic animals. The null and alternative hypotheses of H_3 are stated below:

H$_0$: The type or profile of visitors will not change with the introduction or reintroduction of the iconic animals into the selected SANParks.

H$_3$: The type or profile of visitors will change with the introduction or reintroduction of the iconic animals into the selected SANParks.

Various cross-tabulations and chi-square tests have been conducted between the demographics of the sample and firstly if they would visit a park after the introduction of iconic animals and secondly if they would visit the three selected SANParks specifically to see the "Big 5" or iconic animals. Figure 6.22 graphically displays the results attained from the cross-tabulations.

Figure 6.22: Cross tabulation of demographics and if visitors would visit a park if iconic animals are introduced

Legend: ■ If iconic introduced would you visit the park No   ■ If iconic introduced would you visit the park Yes
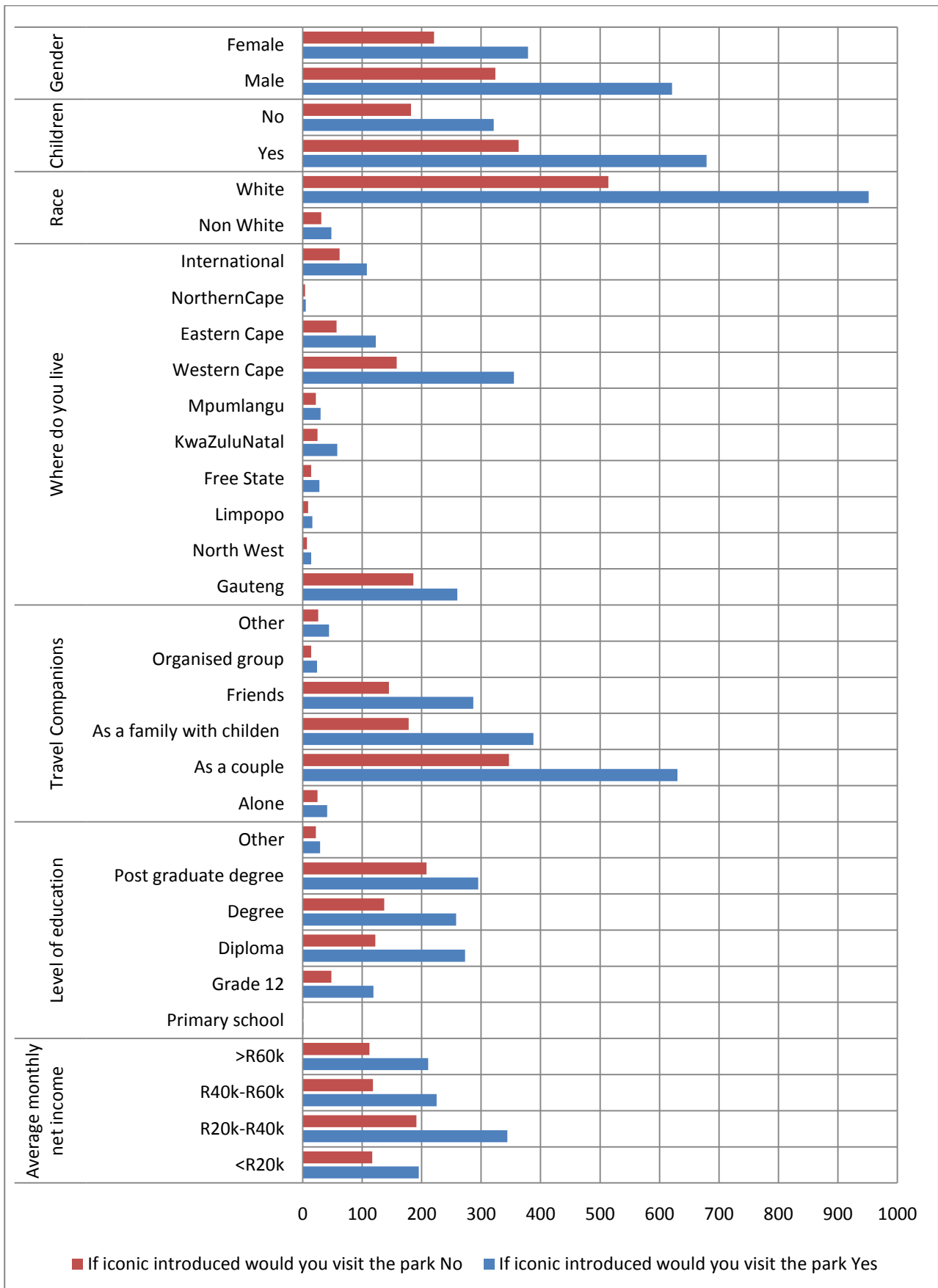
Table 6.14: Chi-square test results showing the probability

Demographics	p-value	Significance
Gender	0.3071	p > 0.05
Children	0.6039	p > 0.05
Age	**0.0947**	**0.1> p > 0.05**
Race	0.4489	p > 0.05
Where do you live	**0.0621**	**0.1> p > 0.05**
Travel Companion - Alone	0.6316	p > 0.05
Travel Companion - As couple	0.7069	p > 0.05
Travel Companion - As family	**0.0307**	**p < 0.05**
Travel Companion - With friends	0.4467	p > 0.05
Travel Companion - Organised group	0.7166	p > 0.05
Level of education	**0.0065**	**p < 0.05**
Average monthly net income	0.8427	p > 0.05

Table 6.14 shows that the p-values are larger than the significance level of 0.05 ($p>0.05$) for gender, children, race, travel companion – alone, as a couple, with friends, organised group, and the average net income. H_0 can therefore not be rejected in favour of H_3 which indicates that there is no significant difference in the above mentioned demographics and the introduction of iconic animals. The p-values for age and where they live are larger than 0.05 but smaller than 0.1 ($0.1>p>0.05$). This shows that there is a tendency for the age and where the visitors live to differ with the introduction and/or reintroduction of iconic animals. The highlighted rows in the Table 6.14 both show a p-value that is smaller than the significance level of 0.05 ($p<0.05$). This stipulates that there is a significant difference with the introduction of iconic animals into a park, if the visitor travels as a family with children and the visitors level of highest education. An in-depth analysis was done to see how strong the relationships are for the p-values that show a significant difference. For all the p-values the phi coefficient was smaller than 0.3 ($\varphi<0.3$) suggesting a weak relationship between the change in demographics with the introduction of iconic animals.

To see if the type of visitor would change with the introduction of iconic animals in the three selected SANParks specifically, the results of the cross-tabulations of the demographics and question 9 (asking respondents if they visit the three selected SANParks specifically to see the "Big 5") should be considered.

Table 6.15: Selected SANParks chi-square test results showing the probability

	Addo Elephant NP		Karoo NP		Mountain Zebra NP	
	p-value	Sig.	p-value	Sig.	p-value	Sig.
Gender	0.5357	p > 0.05	0.4469	p > 0.05	0.8994	p > 0.05
Children	0.2428	p > 0.05	0.1724	p > 0.05	0.9168	p > 0.05
Age	**0.0002**	**p < 0.05**	**0.0005**	**p < 0.05**	**0.0002**	**p < 0.05**
Race	0.7126	p > 0.05	0.7774	p > 0.05	0.8904	p > 0.05
Where do you live	**<0.0001**	**p < 0.05**	**0.0601**	**0.1>p>0.05**	0.1528	p > 0.05
Travel Companion - Alone	0.6104	p > 0.05	0.1755	p > 0.05	0.2367	p > 0.05
Travel Companion - As couple	**0.0142**	**p < 0.05**	**0.0121**	**p < 0.05**	**0.0029**	**p < 0.05**
Travel Companion - As family	**0.0002**	**p < 0.05**	**0.0004**	**p < 0.05**	**0.0044**	**p < 0.05**
Travel Companion - With friends	**0.065**	**0.1>p>0.05**	**0.084**	**0.1>p>0.05**	0.5537	p > 0.05
Travel Companion - Organised group	0.4519	p > 0.05	0.5522	p > 0.05	0.7712	p > 0.05
Level of education	0.8649	p > 0.05	**0.0075**	**p < 0.05**	**0.0804**	**0.1>p>0.05**
Average monthly net income	0.6313	p > 0.05	0.253	p > 0.05	0.9837	p > 0.05

As seen in Table 6.15, the p-values for age, where the respondents live, travelling as a couple and as a family with children are all smaller than the significance level of 0.05 (p<0.05). This indicates that with the introduction of iconic animals there would be a change in the visitor type with regards to their age, where they travel form to visit Addo Elephant National Park and whom they travel with. The p-values for travelling with friends (p=0.065) is larger than the significance level of 0.05 but smaller than 0.1. It can thus be concluded that there is a tendency for friends being the travel companion to change with the introduction of iconic animals. No significant difference can be noted in gender, whether or not they have children, the race, some travel companions, level of education and the average monthly net income as their p-values are all larger than the significance level of 0.05 (p>0.05).

Karoo National Park showed similar patterns as Addo Elephant National Park. The p-values for age, travel companion as couple and family with children, and level of education were smaller than 0.05 (p<0.05), suggesting a significant difference. A tendency for difference was seen in where the respondents live (p=0.0601), and when their travel companions are friends (p=0.084) as the p-values are larger than 0.05 and smaller than 0.1. From this it is apparent that there might be a change in the type of visitor with regards to their age, whom they travel with and their highest level of education obtained.

Mountain Zebra National Park showed only a significant difference for age (p=0.0002) and the travel companion as a couple (p=0.0029) and a family with children (p=0.0044) as the p-values were smaller than 0.05 (p<0.05). Their level of education showed a p-value of 0.0804 indicating a tendency for difference as 0.1>p>0.05. The other demographics showed no significant difference as all the p-values calculated were larger than 0.05 (p>0.05), suggesting that H_0 can not be rejected in favour of H_3, meaning that the type or profile of visitor will not change with the introduction of iconic animals in the selected SANParks.

6.3.4 Hypothesis 4

The fourth hypothesis deals with the willingness to pay more for the presence of iconic animals. The null and alternative hypothesis for H_4 are given below:

H_0: Visitors are not willing to pay more for the presence of iconic animals in the selected SANParks.

H_4: Visitors are willing to pay more for the presence of iconic animals in the selected SANParks.

In order to establish if visitors are willing to pay more for the presence of iconic animals, the results of various cross-tabulations should be considered. A combination of two frequency tables (the respondents willingness to spend more and the fact that they would visit a park after the introduction of iconic animals) indicated that of the 1018 respondents that would visit a park after the introduction of iconic animals, 689 respondents are willing to pay more to visit a park with the "Big 5" or iconic animals present. Another combination of frequency tables (the respondents willingness to pay more and the fact that they would visit a park where no iconic animals are present) showed that of the 1382 respondents that would visit a park where no iconic animals are present, 559 indicated that they would be prepared to pay more to visit a park with the "Big 5" or iconic animals present. A chi-square test has proven the relationship to be significant as the p-values obtained were both smaller than 0.0001 which is lower than the significance level of 0.05 suggesting that H_0 can be rejected in favour of H_4. This means that visitors are willing to pay more for the

presence of iconic animals. Figure 6.23 provides a graphic representation of the results attained.

Figure 6.23: Cross tabulation of respondent's willingness to pay more for iconic animals
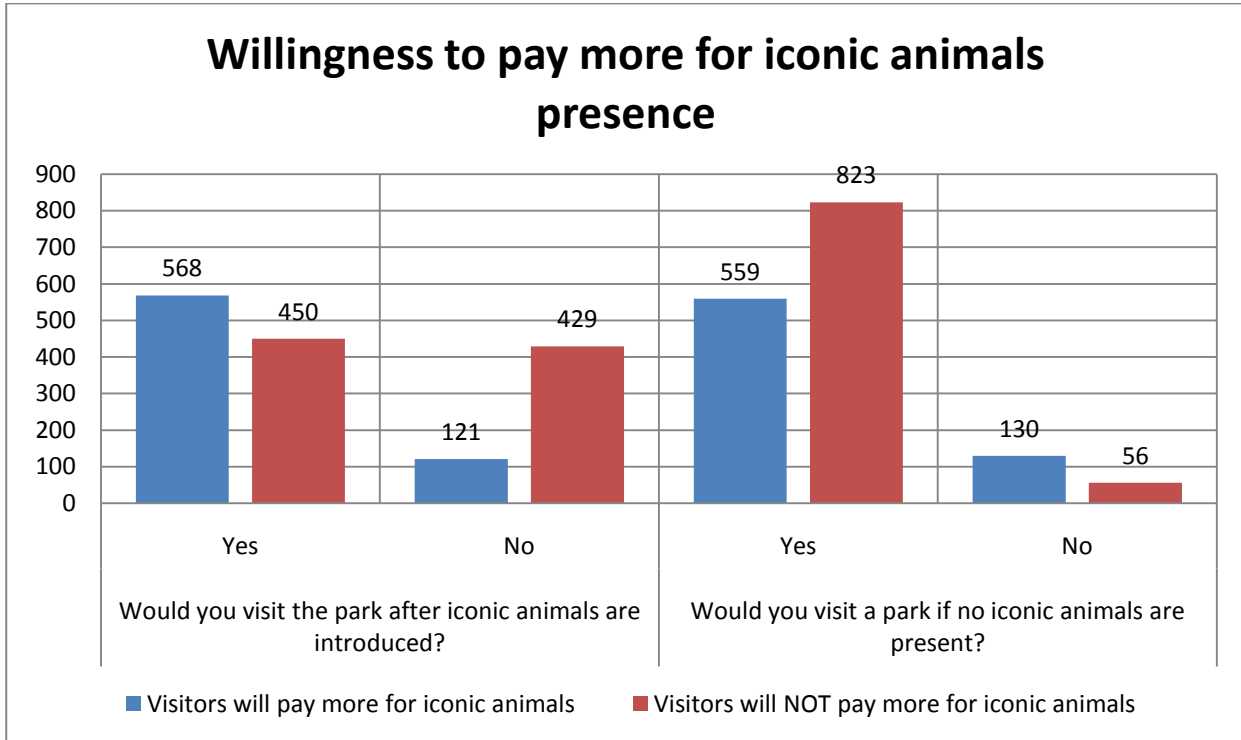
The 689 respondents that stipulated that they would pay more to visit a park where the "Big 5" or iconic animals are present were further asked to indicate the percentage of how much more they would be prepared to spend per category. The results in Table 6.16 display the average percentages per category on which the respondents are willing to spend more.

Table 6.16: Average percentages of how much more respondents are willing to spend

Category	Mean	Std Dev
% more - Accommodation	33.904	278.430
% more - Food & Beverages	10.675	98.506
% more - Activities	6.929	78.077
% more - Transport to the park	16.530	112.159
% more - Transport in the park	9.053	60.066
% more - Entrance-Conservation fee	13.607	49.835
% more - Other	1.9837	38.927

A test of means was conducted against a reference constant value as well to test the probability of the relationship being significant. Table 6.17 displays the statistical results of the test. It indicated no significant p-value (p<0.05) for any of the constructs nor the composite scale measurement.

Table 6.17: Original statistical results of how much more respondents are willing to spend

Variable	Test of means against reference constant (value)							
	T²(casewise MD)=71.9587 F(7,662)=10.187 p<.00000							
	Mean	Std.Dv.	N	Std.Err.	Reference Constant	t-value	df	p-values
Accommodation	33.904	278.430	674	10.725	0.00	3.161257	673	**0.001641**
Food & Beverages	10.675	98.506	677	3.786	0.00	2.81968	676	**0.004948**
Activities	6.929	78.077	676	3.003	0.00	2.307385	675	**0.021335**
Transport to the park	16.530	112.159	676	4.314	0.00	3.831804	675	**0.000139**
Transport in the park	9.053	60.066	676	2.310	0.00	3.918847	675	**0.000098**
Entrance fee / Conservation fee	13.607	49.835	677	1.915	0.00	7.104347	676	**0.000000**

6.4 CONCLUSION

This chapter has presented the results and findings of the empirical research. Descriptive statistics or frequencies were presented in the form of tables and figures to provide an indication of the relative importance of iconic animals in selected SANParks. Certain cross-tabulations were done to establish relationships between variables. The inferential statistics were presented to test the four formulated hypotheses. The null hypothesis of the first, second and fourth hypotheses could be rejected in favour of the alternative hypothesis. The null hypothesis of the H_3 could not be rejected demonstrating that the type or the profile of visitors will not change with the introduction or reintroduction of iconic animals.

The interpretation of the results and the implications of the findings will be discussed in the next chapter. In the final chapter of this research study a discussion on the limitations of the study will be provided. Recommendations on managerial actions and directions for future research within this specific field of study will conclude the script.

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

7.1 INTRODUCTION

In the preceding chapter the research results were presented based on the stated objectives and hypotheses. In the final chapter of this dissertation, the results are interpreted and conclusions are drawn showing the link with the existing literature. Any research project is not without its limitations and these are discussed within the parameters of the study and how these limitations impacted on the implementation of the study, the data analysis, the results and the conclusions. The study is then concluded with a discussion on some of the practical and managerial implications of the research as well as some highlighted suggestions for future research in this area.

7.2 INTERPRETATION AND DISCUSSION OF RESULTS

7.2.1 The relative importance of iconic animals as tourist attraction

Wildlife tourism involves broad spectra of tourism experiences with the distinguishing feature of wild animals as the primary attraction. According to Hughes, Newsome and Macbeth (2005), wildlife tourism provides uniqueness, ease of viewing species at close proximity, vulnerability and experiencing the charisma of certain species. The results of this study indicated that overall, national parks are visited most for reasons such as to experience nature, game viewing, relaxation, photography and to escape the city life or solace. Viewing iconic animals specifically is also considered important but falls just outside of the top five reasons why national parks are visited.

Wildlife tourism often focuses on large, charismatic megafauna, such as the "Big 5", which oftentimes function as flagship species for a country. Viewing the "Big 5" or iconic animals is regarded as an attraction in various parks in South Africa and served as a main drawcard for decades (Skibins *et al.,* 2012:112). Specific aspects of a destination, like the "Big 5", can often be seen as the motivations or reasons for travelling to a national park

and which attracts them to a specific destination. The public's attention inevitably tends to focus on species that are more easily observed which include particularly larger species that show dramatic behaviours – such as predators, certain symbolic animals, or rare and exotic species (Skibins *et al.,* 2012:112). The results support this as iconic animals, including the "Big 5", can be considered to be a greater attraction than most other attractions but it is not considered the greatest or most important attraction. The results thus suggest that visitors do not consider iconic animals, like the "Big 5", as the most important aspects when visiting a national park but still like to view and experience them.

The Kruger National Park is known to be an established attractive destination to specifically view the "Big 5" or iconic animals and was also assessed to serve as benchmark. The obtained results support the above mentioned statement as viewing the "Big 5" or iconic animals was regarded as the fourth most important aspect with regards to the attractiveness of the Kruger National Park together with game viewing, self drive game drives, and bird watching.

According to Lindsey *et al.* (2007:30) international tourists visiting South Africa are primarily interested in large predators and charismatic megafauna, while local and more experienced wildlife tourists show more interest in bird diversity, plant diversity and scenery, and are less interested in high profile animal species. The results of this study support the view as international visitors considered viewing iconic animals as one of the top reasons for travelling to a national park, after game viewing and experiencing nature. Conservation efforts and learning about nature is more important to international visitors whereas domestic visitors like to go to national parks to relax, enjoy the nature to escape the busy city and work life.

In order to further explore the relative importance of iconic animals, an analysis of the individual iconic animals was done. According to Woods (2000), large charismatic animals like cats that provide an exciting, thrilling and adventurous experience are more sought after than other game species. Furthermore, Minin, Fraser, Slotow and MacMillan (2012) found that the three big cat species (lion, leopard, and cheetah), in particular, are the most sought after species by respondents in their study. The results of this study supports this as leopards, wild dogs, cheetah as well as lions were considered extremely important.

Previous research also suggests that animals that are rarely seen, special, elusive or endangered are also more important and sought after than others. This is in accordance with the findings as the results show that visitors believe that leopards are considered rare and elusive animals and always provide visitors with a challenge in finding them. Rhinos and elephants were also seen as important individual iconic animals which supports the literature suggesting that there is an increase in tourist demand to interact with wildlife, especially with animals that are unusual or endangered (Rodger *et al.,* 2007; Semeniuk *et al.,* 2010; Shackley, 1996). The rhino is endangered and in the spotlight as national parks and other game reserves fight a losing battle against poaching which attracts a lot of visitors.

While most of the acknowledgements focused primarily on the big game species, the results also showed that almost 10% of the respondents indicated that there is no specific animal they look for when visiting a national park and that all animals including the experience and the natural environment are equally important. From this it becomes apparent that there is a certain preference when it comes to viewing animals in national parks but that it is also very subjective and dependent on multiple variables like the specific park, the reason for viewing and the availability.

7.2.2   Visitor numbers and the presence of iconic animals

Travellers visit national parks for various reasons and the collective experience that makes their trip memorable and enjoyable. This became clear when 88% of the respondents indicated that they would also visit a park where no iconic animals are present meaning that they visit national parks for other reasons as well. Just over 35% of the respondents also stipulated that they would not visit a park after the introduction and/or reintroduction of iconic animals. This reveals that in some instances the presence of iconic animals may not be conclusive and may even prevent visitors from going to the park. Although no known studies have been conducted to which this can be compared or measured to, Higginbottom (2004) suggests that this can be due to various reasons such as the impact on the environment, the elimination of other specific and unique activities that cannot be done when iconic animals are present. Despite these findings however, the test result indicated a significant difference ($p<0.05$), suggesting that there will be a possible increase

in visitor numbers with the presence of iconic animals. This finding generally means that with the introduction and/or reintroduction of iconic animals more visitors will come to view them.

7.2.3   Visitor type and the presence of iconic animals

Duffus and Dearden (1990), point out that, tourists cannot be considered a homogeneous population; even tourists that may primarily be motivated by the same stimulus, such as wildlife viewing, which means that there are many different types of wildlife tourists.

As previous research in the field of visitor profiling and segmentation shows, there are different target markets or profiles that visit different parks according to their recorded documentation of the demographics. Boxall and McFarlane (1993), Pearce and Wilson (1995), Moscardo (2000), Fredline and Faulkner (2001), and Moscardo *et al*., (2001) compiled various studies of differences between wildlife tourism markets and other tourists which suggest that wildlife tourists are more likely to be older, to stay longer, to spend more money, to be independent, and to have higher levels of education and income. The results support this literature as the visitors are predominantly between the ages of 51 and 70 years, with a diploma, degree or post-graduate degree, a monthly net income of between R20 001- R40 000, travelling as a couple and typically staying for 2-3 days at a time. The results of the cross-tabulation showed that in general, only the travel companions (family with children), and the level of education would change with the introduction and/or reintroduction of iconic animals gesturing towards a relatively unchanged visitor profile. This finding means that generally the same type of people with similar characteristics would visit the park with the introduction and/or reintroduction of iconic animals.

7.2.4   The willingness to pay for iconic animals

Financial implications and considerations are always sensitive topics and many respondents are reluctant to provide such information. For this reason there is very limited research about financial sustainability in monetary terms, with regards to the introduction of iconic animals. According to Goodwin and Leader-Williams (2000) and Kruger (2005),

charismatic species are thought to be a primary motivator for tourist decision-making, and a key factor to financial competitiveness for protected areas. The study thus focussed on visitors' willingness to pay for the presence of iconic animals in general to provide an indication if a possible increase in income for the parks could be expected with the introduction of iconic animals. The average percentage of how much more visitors are willing to spend on the various categories could be used to indicate a monetary value. On average, the respondents spent R9554.00 per person per visit for the whole trip. Of this amount, 39% is allocated to accommodation, 26% on transport to the park, 16% on food and beverages, 9% on transport in the park, 5% on entrance/conservation fee, 3% on activities, and 2% on other expenditures. From this it can be seen that accommodation and transport to the park are the two main cost components when visiting a national park which are seen as a necessity. This finding suggests that there is not much money left to spend on luxury items like leisure activities offered at the parks, including guided game drives, game walks, hiking, 4x4 trails and animal tracking.

A study compiled by Minin *et al.* (2012), found that rare or threatened species, such as leopard, black rhino and the African wild dog, leads to a rise in price visitors are willing to pay. The results support this as around 40% of the respondents indicated that they would pay more to visit a park where the "Big 5" or iconic animals are present as opposed to a park in which they are absent. These visitors stipulated further that they would be willing to spend 34% more on accommodation, 17% more on transport to the parks, 14% more on entrance or conservation fees, 11% more of food and beverages, 9% more on transport in the park, and 7% more on activities. The fact that the respondents are willing to spend 14% more on the entrance or conservation fee could suggest that visitors are concerned about the protection and sustainability of the iconic animals and hope that their financial contribution can help with the maintenance and conservation of the environment for the welfare of the animals. The results also showed a 7% increase in expenditure on activities, which could be ascribed to the idea that to be able to see the introduced iconic animals, activities like guided game drives or animal tracking might be required to get the full value of the encounter and to enhance the viewing experience.

7.2.5 Park specific findings

7.2.5.1 *Relative importance of iconic animals in the selected SANParks*

The selected parks possess various attractions or travel motivations, besides viewing iconic animals, which attract visitors to national parks. Game viewing, self-drive game drives, experiencing the bush, bird watching and the quality and type of accommodation were the top five aspects contributing to the attractiveness of Addo Elephant, Karoo, and Mountain Zebra National Park. Viewing the "Big 5" or iconic animals varies slightly in the various parks. Comparing the three selected parks viewing the "Big 5" or iconic animals is most attractive in Addo Elephant National Park, followed by Mountain Zebra National Park and is only eighth on the list for Karoo National Park. This can be supported by literature suggesting that Addo Elephant National Park is the biggest park in the southern side of the country holding the "big 7" and being popular for it (SANParks, 2014). Many of the respondents indicated that they would prefer to visit Addo Elephant National Park for their next visit primarily because it offers very similar attractions to the Kruger National Park and is located in close proximity.

According to Tian-Cole and Crompton (2003), several attributes exist that contribute to satisfaction. Motivations and expectations have to, a large extent, be met in order for wildlife tourists to feel satisfied with their visit to a wildlife tourist destination. Fulfilling expectations is particularly vital because wildlife tourists assess them by comparing them with desired outcomes (Tribe & Snaith,1998). When looking at the two smaller parks literature suggests that the importance of iconic animals should decrease since the bigger parks already satisfy the need to view iconic animals by being established and more popular (Curtin, 2005). This became clear when analysing the results. Both the parks were considered not very attractive with regards to viewing the "Big 5" or iconic animals as only 17,5% of the respondents selected it as one of the five most important aspects for Karoo National Park and only 17.4% for Mountain Zebra National Park. This is almost half as many respondents as Addo Elephant National Park and only a quarter of the respondents in Kruger National Park. The literature is again supported as results show that other aspects like 4x4 trails or hiking are more important in the smaller parks, like the Karoo National Park, when considering the attractiveness of the park specifically.

International visitors also indicated that game viewing, self-drive game drives, experiencing the bush and bird watching are important aspects in all three of the selected SANParks. In Addo Elephant National Park, viewing iconic animals were considered the fifth most important aspect with regard to attractiveness whereas in Karoo National Park it was only in the eleventh place and in Mountain Zebra National Park it was placed twelfth. This contradicts the literature suggesting that viewing iconic animals in the three selected parks is more important for international than for domestic visitors. This shows that the smaller national parks (Mountain Zebra and Karoo National Park) are considered less important with regards to the presence of iconic animals and that international visitors would rather visit established and known parks to view them like Addo Elephant National Park. The results from the Kruger National Park support this interpretation as 60% of the international respondents specified that viewing iconic animals is seen as the third most important aspect with regards to the attractiveness of the park after game viewing and self-drive game drives.

7.2.5.2   *Visitor numbers and iconic animals in the selected SANParks*

The results of the relationship between visitor numbers and the presence of iconic animals in the selected SANParks depicted that only 36.6% of the respondents indicated that they would visit Addo Elephant National Park specifically to see the "Big 5", 17.6% specified that they would visit Mountain Zebra National Park, and 16.7% the Karoo National Park specifically to view the "Big 5". From these results it becomes evident that the three selected SANParks are not really considered preferred destinations for viewing the "Big 5". These small percentages may not show a big enough increase in visitor numbers to the selected SANPArks to cover the cost related to the introduction and maintenance of the iconic animal to preserve to suitability of the park.

7.2.5.3   *Visitor profile and iconic animals in the selected SANParks*

Assessing the visitor profiles of the selected SANParks, the results showed that in Addo Elephant National Park, the age, where they live, and with whom they travel are aspects that would change with the introduction and/or reintroduction of iconic animals. Karoo National Park showed similar results as a change in age, travel companions, and level of education could be expected, whereas the results of Mountain Zebra National Park

showed the least possibility of change as only the age and the travel companions could change with the introduction of iconic animals. This finding means that the visitors to the selected SANParks can be considered relatively loyal and that they visit the park repeatedly as it only showed a change in the variables that are flexible and interchangeable with each visit. This suggests that iconic animals will not attract different types of visitors to the park once they have been introduced.

7.3   MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

A number of managerial and practical implications for SANParks and other relevant nature-based tourism organisations were identified within the analysis. The recommendations are presented next and could be used by key stakeholders to ensure that nature-based tourism is implemented and used appropriately to serve as the best possible financial opportunity to support and supplement conservation whilst providing sustainable high quality, nature-based, value-for-money tourism experiences.

- It was established that the relative importance of iconic animals was determined a greater attraction relative to certain other attractions in the selected SANParks. This suggests that visitors consider iconic animals as an important aspect but not as the most important. Visitors to national parks want a variety of aspects focussing specifically on nature related variables and biodiversity. It is seen in the smaller parks like Addo Elephant and Mountain Zebra National Park that iconic animals or the "Big 5" are less important than in the bigger established parks like Kruger National Park. Taking this into consideration it becomes clear that SANParks should focus on the uniqueness of the various parks and their specific product offerings. SANParks should not make all the product offerings of their parks the same as research indicated that most visitors would not visit a park only if iconic animals were introduced. It also became evident that visitors do not like the fact that they might be restricted to partake in other activities like hiking or walking due to the presence of iconic animals and would refrain from visiting the park again.

- There are 21 different national parks in South Africa, spread out geographically with each satisfying specific needs and wants of tourists visiting that specific park for unique reasons. Addo Elephant National Park serves as the third largest park and is located in the south of the country, providing an established "Big 5" destination for visitors originating from the Cape regions or other southern parts of the country. As these tourists consider the Kruger National Park to be too far away to visit specifically to view iconic animals Addo Elephant National Park is considered an attractive alternative. SANParks should thus try to perfect the offering of iconic animals and the "Big 5" in the larger parks and focus on the more unique aspects in the smaller parks. This will contribute to a competitive advantage and create a unique selling point in the wildlife tourism industry.

- The possible increase in visitor numbers with the presence of iconic animals or the "Big 5", is directly linked to visitor satisfaction with the wildlife tourism experiences. It is important to constantly re-evaluate the needs and wants of the target market as they change over time and also to ensure sustainability. Due to the increased competition in the market through the establishment of private game reserves and other wildlife experiences, it is extremely important to keep customers happy and satisfied in order to create loyalty and continued support. The tourism industry is highly responsive to market demand, and is likely to continue to develop tourism products to meet consumer interests in wildlife. By purposefully understanding visitors' species preference, managers can increase viewing opportunities, ease pressure on the parks resources and develop thematic clarity to brand the natural area. This will contribute positively to the perceptions and expectations of visitors and ensure customer satisfaction. Awareness and perceptions about the parks thus need to be increased and corrected if misperceptions are present. SANParks should also keep up to date and informed about the latest market trends and ensure the product offering is in line with the wants and needs of the target market. As wildlife viewing is linked to awareness of conservation issues and the environmental impacts, SANParks needs to make sure the correct conservation efforts and EIA are done before the introduction and/or reintroduction of iconic animals.

- Taking into consideration the type or profile of visitors to the selected parks it can be seen that the majority of the market to the smaller parks consists of domestic travellers but findings indicate that tourist viewing preferences are diverse in different market segments. While overseas and inexperienced visitors to protected areas are interested primarily in large predators and mega-herbivores, local experienced wildlife viewers (including those from overseas) and in some cases, older guests tend to show a greater interest in bird and plant diversity, scenery, and rarer, less easily-observed and/or less high-profile mammal species, such as sable antelope, hyenas, cheetahs and wild dogs. SANParks should know the target markets of the specific parks and cater for the majority to retain loyal visitors, and then focus on attracting the new and emerging markets. International visitors specifically also indicated that iconic animals are among the top reasons for visitation but not the most important reasons, and that viewing iconic animals in the smaller parks is less important that in bigger parks. This means that SANParks will not necessarily benefit from introducing iconic animals into these smaller parks to appeal to them. They should not try to attract international visitors to the smaller parks by driving away the domestic market through eliminating their preferred activities at these parks. To do this they should use the correct and appropriate marketing channels for the demographic profile of the selected park to maximise visitation and exposure. As the most used marketing tool, the website and all the corresponding social media sites should be updated on a regular basis to ensure that the information provided to the customers is accurate, timely and sufficient.

- Visitors are generally willing to pay more for the presence of iconic animals but this varies across the different parks and categories which shows that it consists of various components and is a combination of services like hospitality, food and beverage and entertainment. SANParks must make sure their infrastructure and facilities are well kept as they are also used to evaluate the total experience. Some visitors specifically expressed dissatisfaction with the condition of park ablution facilities and camping sites contributing to a negative wildlife experience.

- The "economic sustainability or viability" of introductions and/or reintroductions of iconic animals into the selected parks depends on whether their presence attracts visitors that would otherwise not have visited these parks. The extent to which the presence of iconic animals in the selected parks is desired by visitors is thus important. Iconic animals could also have an impact on the type of visitor to the parks, thus an analysis of demographic profiles, behavioural characteristics, purpose of visits and fluctuations in visitor numbers needs to be done. This information will provide a framework for determining the potential income to selected parks against which the costs related to introductions of iconic animals can be measured.

According to Bigne *et al.* (2005), satisfaction is a vital factor for achieving business success and maintaining customer retention. Mbaiwa (2005) argues that satisfaction also strengthens and sustains tourism. Therefore, if wildlife tourism service providers incorporate all the critical variables in their service provision, they would keep wildlife tourists satisfied. Knowing what visitors want as far as iconic animals are concerned coupled with the economic implications of decisions related to introducing iconic animals should provide some direction for further development on the nature based tourism product in South African National Parks and other reserves within similar contexts.

7.4   LIMITATIONS

There were a number of limitations experienced during this research study and this should be addressed when future research on this topic is conducted. These limitations are:

- Academic literature with regards to economic implications is limited as there are no established methodologies to determine economic viability in the wildlife sector. Furthermore, the financial section in the questionnaire had a very low response rate and people are reluctant to provide any kind of financial or personal information. The respondents also indicated having difficulty answering the financial section as it required them to think back and remember what their expenditures normally include and not all the respondents are the head of the household who normally pays for the trips.

- Certain limitations exist in terms of generalisation to the broader population since a non-probability sampling method was used. As the study only focused on wildlife tourism and the visitors to the three selected SANParks namely Addo Elephant, Karoo, and Mountain Zebra National Park, the findings cannot be generalised to include all visitors and all parks within South Africa.

- As the study is focused on the specific parks it only included respondents from the respective SANParks databases, restricting it to the park. The respondents that participated in the survey are all part of the SANParks database and willing to participate in research projects thus showing similar interests. By subscribing to the database they show an interest in the three selected parks, like wildlife and wildlife viewing activities and have similar desires and wants that are satisfied by the parks. This means that the respondents all have similar profile characteristics which could lead to a bias response favouring the viewing of iconic animals.

- At the data analysis phase it became evident that more questions regarding the specific needs and wants of the individual parks could have been included in the survey in order to group the participants' answers so that patterns could be revealed and studied in more detail. This would provide the individual parks with specifics focussing on their unique product offerings.

7.5 RECOMMENDATIONS FOR FUTURE RESEARCH

The main aim of the research was to determine the relative importance of iconic animals in relation to other attractions of selected SANParks, and to investigate their impact on the type and number of visitors. This study can be enhanced by researching the differences between the international and domestic markets and their reasons or motivations to visit a national park. This should enable organisations to identify specific and separate target markets for each park which will help parks to demine the correct product offerings so that the tourists will be satisfied. By focussing on the target market it can be determined if there will be an increase in visitor numbers to calculate the possible increase in income. As this study also focuses only on the tourism side it would be beneficial to research the impact of iconic animals on the environment of the respective areas.

Furthermore the study looked at the financial considerations with regard to visitors willingness to pay for the presence of iconic animals. While the study provided an indication on the percentage of how much more visitors would be prepared to spend per category, it would be interesting to study the monetary value of willingness to pay for various categories and if it is influenced by other factors like demographic characteristics. This could be combined with research on the economic implications of iconic animals specifically in terms of economic viability and sustainability. This should be investigated to determine if the introduction or reintroduction of iconic animals is a viable and responsible option from a cost/benefit perspective. The intention of this research could be to develop a conceptual framework with regards to animal introductions/reintroductions considering economic implications which allows to address the question "Is it possible?" before addressing the question "Is it right?". This can then be applied to other SANParks or other nature-based tourism stakeholders like private game reserves. The ideal would be to test the conceptual framework in different proximities.

7.6   CONCLUDING REMARKS

This chapter has concluded the research by discussing the findings and drawing conclusions based on the results. The study achieved its overall aim of determining the relative importance of iconic animals as an attraction in relation to other attractions, the impact iconic animals have on visitation, and the willingness to pay for the presence of iconic animals in selected SANParks namely Addo Elephant, Karoo, and Mountain Zebra National Park.

The results and findings should be considered within the limitations and scope of the study. The objectives of the study were successfully achieved and the research problems addressed. The study makes a contribution towards nature-based tourism literature and adds value to key players by proving an understanding of the wants and desires of visitors through looking at the relative importance of iconic animals, their impact on visitation and the financial considerations with regards to willingness to pay for their presence in selected SANParks. This will help ensure that nature-based tourism is implemented and used appropriately to serve as the best possible financial opportunity to support and supplement

conservation whilst providing sustainable high quality, nature-based, value-for-money tourism experiences.

8   LIST OF REFERENCES

Arabatzis, G. & Grigoroudis, E. 2010. Visitors' satisfaction, perceptions and gap analysis: The case of Dadia-Lefkimi-Souflion National Park. *Forest Policy and Economics*, 12(3):163-172.

Awaritefe, O.D. 2004. Motivation and other considerations in tourist destination choice: a case study of Nigeria. *Tourism Geography,* 6(3):303–330.

Aziz, Y.A., Radam, A. & Samdin, Z. 2010. Factors influencing the willingness to pay for entrance permit: The evidence from Taman Negara National Park. *Journal of Sustainable Development*, 3(3):212-220.

Bakker, E.S., Ritchie, M.E., Olff, H., Milchunas, D.G. & Knops, J.M.H. 2006. Herbivore impact on grassland plant diversity depends on habitat productivity and herbivore size. *Ecology Letters*, 9:780-788.

Beh, A. & Bruyere, B.L. 2007. Segmentation by visitor motivation in three Kenyan national reserves. *Tourism Management*, 28(6):1464-1471.

Bennett, J.A. 2000. *Managing Tourism Services. Southern African Perspective.* Pretoria: Van Schaik Publishers.

Bigne, J.E., Sanchez, M.I. & Sanchez, J. 2001. Tourism image, evaluation variables and after purchase behaviour: inter-relationship. *International Journal of Tourism Management,* 22(6):607-616.

Boshoff, A.F., Landman, M., Kerley, G.I.H. & Bradfield, M. 2007. Profiles, views and observations of visitors to the Addo Elephant National Park, Eastern Cape, South Africa. *South African Journal of Wildlife Research*, 37(2):189-196.

Boxall, P.C. & McFarlane, B.L. 1993. Human dimensions of Christmas bird counts: Implications for non-consumptive wildlife recreation programs. *Wildlife Society Bulletin*, 21(4):390-396.

Catlin, J., Hughes, M., Jones, T., Jones, R. & Campbell, R. 2012. Valuing individual animals through tourism: science or speculation? *Biological Conservation,* 157(13):93-98.

Cha, S., McCleary, K.W. & Uysal, M. 1995. Travel motivations of Japanese overseas travellers: a factor-cluster segmentation approach. *Journal of Travel Research,* 34(1):33-36.

Chhetri, P., Arrowsmith, C. & Jackson, M. 2004. Determining hiking experiences in nature-based tourist destinations. *Journal of Tourism Management*, 25(1):31-43.

Cochrane, J. 2003. Ecotourism, conservation and sustainability: a case study of Bromo Tengger Semeru National Park, Indonesia. *The International Journal for Protected Area Managers*, 16(2):10-17.

Cong, L., Wu, B., Morrison, A.M., Shu, H. & Wang, M. 2013. Analysis of wildlife tourism experiences with endangered species: An exploratory study of encounters with giant pandas in Chengdu, China. *Tourism Management,* 40(14):300-310.

Cooper, D.R. & Schindler, P.S. 2006. *Business Research Methods,* 9th ed. New York: McGraw-Hill Publishers.

Cooper, D.R. & Schindler, P.S. 2011. *Business research methods,* 11th ed. New York: McGraw-Hill.

Cooperative Research Centre (CRC) for Sustainable Development (2001). *CRC wildlife tourism research*. [Online] Available from: www.crctourism.com.au. [Accessed: 2013-04-12].

Crompton, J.L. 1979. Motivations for pleasure vacations. *Annals of Tourism Research,* 6(4):408-424.

Curtin, S. 2005. Nature, wild animals and tourism: an experiential view. *Journal of Ecotourism*, 4(1):1-15.

Curtin, S. 2010. Managing the Wildlife Tourism Experience: The Importance of Tour Leaders. *International Journal of Tourism Research,* 12(10):219-236.

Dann, G.M.S. 1977. Anomie, ego-enhancement and tourism. *Annals of Tourism Research,* 4(4):184-194.

Dobson, J., Jones, E. & Botterill, D. 2005. Exploitation or Conservation: Can Wildlife Tourism Help Conserve Vulnerable and Endangered Species? *Interdisciplinary Environmental Review*, 7(2):1-12.

Driml, S. 2010. *The economic value of tourism to national parks and protected areas in Australia.* Gold Coast, Australia: CRC for Sustainable Tourism.

Druce, H., Pretorius, K., Druce, D. & Slotow, R. 2006. The effect of mature elephsnt bull introductions on resident bull's group size and musth periods: Phinda Private Game Reserve, South Africa. *South African Journal of Wildlife Research*, 36(2):133-137.

Duffus, D.A. & Dearden, P. 1990. Nonconsumptive wildlife-oriented recreation: A conceptual framework. *Biological Conservation,* 53(3):213-231.

Du Plooy, G.M. 2009. *Communication Research, techniques, methods and applications,* 2nd ed. Cape Town: Juta & Co Ltd.

Dwyer, L., Edwards, D., Mistilis, N., Roman, C. & Scott, N. 2008. Destination and enterprise management for a tourism future. *Tourism Management,* 30(9):63-74.

Fennell, D.A. 2008. *Ecotourism,* 3rd ed. London: Routledge.

Fischer, J. & Lindenmayer, D.B. 2000. An assessment of the published results of animal relocations. *Biological Conservation,* 96(1):1-11.

Fodness, D. 1994. Measuring tourists' motivation. *Annals of Tourism Research,* 21(3): 555-581.

Fredline, L. & Faulkner, B. 2001. *International market analysis of wildlife tourism.* [Online] Available from: http://www.crctourism.com.au [Accessed: 2013-04-12].

Galley, G. & Clifton, J. 2004. The motivational and demographic characteristics of research ecotourists: operation wallacea volunteers in southeast Sulawesi, Indonesia. *Journal of Ecotourism,* 3(1):69-82.

Goodwin, H. & Leader-Williams, N. 2000. Tourism and protected areas – Distorting conservation priorities towards charismatic megafauna? In Entwistle, A. & Dunstone, N. (eds) Priorities for the Conservation of Mammalian Diversity: Has the Panda Had its Day? Cambridge: Cambridge University Press.

Google Maps. 2015. *Maps of the location of the three selected SANParks.* [Online] Available from: https://www.google.co.za/maps [Accessed: 2015-06-30].

Gössling, S. 2000. Tourism a sustainable development option? *Environmental Conservation,* 27:223-224.

Gundimeda, H. 2005. *Hedonic price method – A concept note.* [Online] Available from: http://www.coe.mse.ac.in/dp/hedonic%20price.pdf [Accessed: 2013-04-12].

Hadkler, N., Sharma, S., David, A. & Muraleedharan, T.R. 1997. Willingness-to-pay for Borivli National Park: Evidence from a contingent valuation. *Ecological Economics,* 21(2):105-122.

Hanley, N. & Spash, C.L. 2003. *Cost-benefit analysis and the environment.* Bodmin, Conrwall:MPG Books.

Hay, M.J. & McConnell, K.E. 1979. An analysis of participation in nonconsumptive wildlife recreation. *Land Economics*, 55(4):460-471.

Hayward, M.W., Adendorff, J., O'Brien, J., Sholto-Douglas, A., Bissett, C., Moolman, L.C., Bean, P., Fogarty, A., Howarth, R.S., Slater, R. & Kerley, G.I.H. 2007. Practical considerations for the reintroduction of large, terrestrial, mammalian predators based on reintroductions to South Africa's Eastern Cape Province. *The Open Conservation Biology Journal,* 1(1):1-11.

Hayward, M.W., O'Brien, J., Hofmeyr, M. & Kerley, G.I.H. 2007. Testing predictions of prey of lion derived from modeled prey preferences. *The Journal of Wildlife Management*, 71(5):1567-1575.

Hayward, M.W. & Somers, M.J. 2009. *Reintroduction of Top-order Predators.* New York: Blackwell Publishing Ltd.

Higginbottom, K. 2004. *Wildlife Tourism: Impacts, Management and Planning.* Gold Coast: Common Ground Publishing.

Higginbottom, K. & Buckley, R. 2003. *Viewing of Free-Ranging Land-Dwelling Wildlife*. Gold Coast, Queensland: CRC for Sustainable Tourism.

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.

Hughes, M., Newsome, D. & Macbeth, J. 2005. Case study: Visitor perceptions of captive wildlife tourism in a Western Australian natural setting. *Journal of Ecotourism,* 4:73-91.

Hunter, L.T.B., Pretorius, K., Carlisle, L.C., Rickelton, M., Walker, C., Slotow, R. & Skinner, J.D. 2007. Restoring lions Panthera leo to northern KwaZulu-Natal, South Africa: short-term biological and technical success but equivocal long-term conservation. *Oryx*, 41(2).

Iso-Ahola, S.E. 1982. Towards a social psychology theory of tourism motivation: arejoinder. *Annals of Tourism Research*, 9(2):256-262.

IUCN Species Survival Commission. 2012. *Guidelines for Reintroductions and Other Conservation Translocations.* [Online] Available from: http://www.issg.org%2Fpdf%2Fpublications%2Ftranslocation-Guidelines-2012.pdf [Accessed: 2013-07-27].

Kerley, G.I.H., Geach, B.G.S. & Vial, C. 2003. Jumbos or bust: Do tourists' perceptions lead to an under-appreciation of biodiversity? *South African Journal of Wildlife Research*, 33:13-21.

Kerstetter, D.L., Hou, J. & Lin, C. 2004. Profiling Taiwanese ecotourists using a behavioural approach. *Tourism Management,* 25:491-498.

Keyton, J. 2011. *Communication Research, Asking questions, Finding answers,* 3rd ed. New York: McGraw Hill Publishers.

Kim, S.S., Lee, C.K. & Klenosky, D.B. 2003. The influence of push and pull factors at Korean National Parks. *Tourism Management,* 24(2):169-180.

King, D.M. & Mazzotta, M.J. 2000. *Contingent valuation method.* [Online] Available from: http://www.ecosystemvaluation.org/contingent_valuation.htm [Accessed: 2014-06-07].

Kline, R.B. 2011. *Principles and Practice of Structural Equation Modelling*, 3rd ed. New York: The Guildford Press.

Kosz, M. 1996. Valuing riverside wetlands: The case of the "Donau-Auen" national park. *Ecological Economics,* 16(2):109-127.

Krosnick, J.A. 1999. Survey research. *Annual Review Psychology*, 50:537-567.

Kruger, O. 2005. The role of ecotourism in conservation: panacea or Pandora's box? *Biodiversity Conservation,* 14(3):579-600.

Kruger, M. & Saayman, M. 2010. Travel motivation of tourists to Kruger and Tsitsikamma National Parks: a comparative study. *South African Journal of Wildlife Research,* 40(1):93-102.

Kruger, M., Saayman, M. & Manners, B. 2012. Determinants of visitor expenditure at the Tsitsikamma National Park. *Journal of Economic and Financial Sciences*, 5(1):11–30.

Kruger, M., van Loggerenberg, E. & Saayman, M. 2010. *A marketing analysis of overnight guest to the Karoo National Park*. Potchefstroom, South Africa.

Kuenzi, C. & McNeely, J. 2008. *Nature-based Tourism*, 2nd ed. The Netherlands: Springer.

Leberman, S.I. & Holland, J.D. 2005. Visitor Preferences in Kruger National Park, South Africa: The Value of Mixed-Method Approach. *Journal of Park and Recreation Administration*, 23(2):21-36.

Leedy, P.D. & Ormrod, J.E. 2005. *Practical Research*, 8th ed. New Jersey: Pearson Prentice Hall.

Lindsey, P.A., Alexander, R., Mills, M.G.L., Romanach, S. & Woodroffe, R. 2007. Wildlife viewing preferences of visitors to protected areas in South Africa: Implications for the role of ecotourism in conservation. *Journal of Ecotourism*, 6(1):19-33.

Lipton, D.W., Wellman, K., Sheifer, I.C. & Weiher, R.F. 1995. Economic valuation of natural resources. NOAA Coastal Ocean Program Decision Analysis Series No. 5. [Online] Available from: http://www.csc.noaa.gov/coastal/economics/irreversibility.htm [Accessed: 2014-03-24].

Maciejewski, K. & Kerley, G.I.H. 2014. Understanding Tourists' Preference for Mammal Species in Private Protected Areas: Is there a Case for Extralimital Species for Ecotourism? *Plos one,* 9(2):e88192.

Macmillan Dictionary. 2014. *Iconic – Definitions and Synonyms.* [Online] Available from: http://www.macmillandictionary.com/dictionary/british/iconic [Accessed: 2014-02-09].

Matt, C. & Aumiller, L. 2002. A win-win situation: managing to protect brown bears yields high wildlifeviewer satisfaction at McNeil River State Game Sanctuary. In: Manfredo, M. 2004. (ed.) *Wildlife watching in North America: A management planning handbook*. Corvallis, Oregon: Oregon State University Press.

Mbaiwa, J.E. 2005. The problems and prospects of sustainable tourism development in the Okavango Delta, Botswana. *Journal of Sustainable Tourism*, 13(3):203-225.

McConnell, K.E. 1985. Valuation congested recreation sites. *Journal of Environmental Economics and Management*, 7:389-394.

McCrum-Gardner, E. 2008. Which is the correct statistical test to use? *British Journal of Oral and Maxillofacial Surgery,* 46:38-41.

McIntosh, R.W., Goeldner, C.R. & Ritchie, J.R. 1995. *Tourism Principles, Practices, Philosophies,* 7th ed. New York: John Wiley & Sons,Inc.

Mehmetoglu, M. 2007. Typologising nature-based tourists by activity – theoretical and practical implications. *Tourism Management,* 28:651–660.

Minin, E.D., Fraser, I., Slowtow, R. & MacMillan, D.C. 2012. Understanding heterogeneous preferences of tourists for big game species: implications for conservation and management. *Animal Conservation,* 16(13):249-258.

Moscardo, G. 2000. Understanding wildlife tourism market segments: An Australian marine study. *Human Dimensions of Wildlife*, 5(2):36-53.

Moscardo, G., Woods, B. & Greenwood, T. 2001. *Understanding Visitor Perspectives on Wildlife Tourism.* Gold Coast, Australia: CRC for Sustainable Tourism.

news24. 2013. Karoo National Park get two new lions. *news24,* 07 February [Online] Available from: http://www.news24.com/Travel/South-Africa/Karoo-National-Park-gets-two-new-male-lions-20130207 [Accessed: 2013-02-07].

news24. 2013. Lions to be introduced to Mountain Zebra. *news24,* 16 April [Online] Available from: http://www.news24.com/Travel/South-Africa/Lions-to-be-introduced-to-Mountain-Zebra-Park-20130416 [Accessed: 2013-04-16].

Orams, M.B. 2002. Feeding wildlife as a tourism attraction: a review of issues and impacts. *Tourism Management,* 23(3):281-293.

Pagiola, S., von Ritter, K. & Bishop, J. 2004. *Assessing the Economic Value of Ecosystem Conservation.* [Online] Available from: http://www.cmsdata.iucn.org/downloads/pagiolaritterbishoplong.pdf [Accessed: 2013-07-21].

Pan, S. & Ryan, C. 2007. Mountain areas and visitor usage – motivations and determinants of satisfaction: The case of Pirongia Forest Park, New Zealand. *Journal of Sustainable Tourism,* 15(3):288–308.

Pearce, D. 1989. *Tourist development.* Longman group Ltd: Hong Kong.

Pearce, P.L. & Caltabiano, M.L. 1983. Inferring travel motivation from travellers' experiences. *Journal of Travel Research*, 22(2):6-20.

Pearce, D. & Wilson, P. 1995. Wildlife-Viewing Tourists in New Zealand. *Journal of Travel Research*, 34(2):19-26.

Reynolds, P.C. & Braithwaite, D. 2001. Towards a conceptual framework for wildlife tourism. *Tourism Management,* 22(1):31-42.

Ritchie, J.R.B. & Crouch, G. 2003. The competitive destination: a sustainable tourism perspective. Wallingford, UK: CABI Publishing.

Rodger, K. & Moore, S.A. 2004. Bringing science to wildlife tourism: the influence of managers' and scientists' perceptions. *Journal of Ecotourism*, 3(1):1-19.

Rodger, K., Moore, S.A. & Newsome, D. 2007. Wildlife tours in Australia: characteristics, the place of science and sustainable futures. *Journal of Sustainable Tourism,* 15(2):160-179.

Saayman, M. 2014. The non-consumptive value of selected marine species at Table Mountain National Park: an exploratory study. *South African Journal of Economic and Management Sciences*, 17(2):184-193.

Saayman, M., Oberholzer, S. & Kruger, M. 2009. *A marketing anaylsis of overnight visitors to Addo Elephant National Park.* Potchefstroom, South Africa.

Saayman, M. & Saayman, A. 2009. Why travel motivations and socio-demographics matter in managing a national park. *Koedoe*, 51(1):381.

Saayman, M. & Van Der Merwe, P. 2004. *Managing game farms from a tourism perspective,* 2nd ed. Potchefstroom: Institute for Tourism and Leisure Studies.

SANParks. 2012. *South African National Parks Annual Report 2010/2011*. [Online] Available from: http://www.sanparks.org/assets/docs/general/annual-report-2012.pdf [Accessed: 2013-06-14].

SANParks. 2013. *Parks A-Z: Mountain Zebra National Park.* [Online] Available from http://www.sanparks.org/parks/mountain_zebra/ [Accessed: 2013-03-15].

SANParks. 2014. *South African National Parks Annual Report 2013/2014*. [Online] Available from: http://www.sanparks.org/assets/docs/general/annual-report-2014.pdf [Accessed: 2015-06-30].

Saunders, M., Lewis, P. & Thornhill, A. 2007. *Research Methods for Business Students,* 4th ed. New York: Pearson.

Saunders, M., Lewis, P. & Thornhill, A. 2009. *Research Methods for Business Students,* 5th ed. New York: Pearson.

Saunders, M., Lewis, P. & Thornhill, A. 2012. *Research Methods for Business Students,* 6th ed. New York: Pearson.

Scholtz, M., Kruger, M. & Saayman, M. 2013. Understanding the reasons why tourists visit the Kruger National Park during a recession. *Acta Commercii,* 13(1):1-9.

Scholtz, M., Kruger, M. & Saayman, M. 2015. Determinants of visitor length of stay at three coastal national parks in South Africa. *Journal of Ecotourism,* 2015.

Sekerciogll, C.H. 2002. Impacts of Birdwatching on Human and Avian Communities. *Environmental Conservation,* 29(3):282-289.

Semeniuk, C.A.D., Haider, W., Beardmore, B., & Rothley, K.D. 2009. A multi-attribute trade-off approach for advancing the management of marine wildlife tourism: A quantitative assessment of heterogeneous visitor preferences. *Aquatic Conservation-Marine and Freshwater Ecosystems*, *19*(2):194–208.

Shackley, M. 1996. *Wildlife Tourism*. UK: Thomson Business Press.

Sinha, C.C. 2001. *Wildlife Tourism: A Geographical perspective.* Paper presented during the Geography Curriculum Inservice Conference, Tourism Geography: Issues, Challenges and the Changing Nature of Contemporary Tourism, University of Western Sydney, Hawkesbury Campus, 27 July 2001:1-23.

Skibins, J.C., Hallo, J.C., Sharp, J.L. & Manning, R.E. 2012. Quantifying the Role of Viewing the Denali "Big 5" in Visitor Satisfaction and Awareness: Conservation Implications for Flagship Recognition and Resource Management. *Human Dimensions of Wildlife,* 17(2):112-128.

South African Explorer. 2013. *Nomad's Top Highlight of Africa.* [Online] Available from: http://nomadtours.co.za/discover/highlights/best-of/wildlife/ [Accessed: 2013-04-16].

Sparks, B. 1994. Communicative aspects of the service encounter. *CHRIE Hospitality Research Journal,* 17(2):39-50.

Suh, J. & Harrison, S. 2005. Management Objectives and Economic Value of National Parks: Preservation, Conservation and Development. *School of Economics,* 337:1-19.

Tapper, R. 2006. *Wildlife watching and tourism: A study on the benefits and risks of a fast growing tourism activity and its impacts on species.* [Online] Available from: http://www.cms.int [Accessed: 2013-04-15].

Taylor, S.A. & Baker, T.L. 1994. An assessment of the relationship between service quality and customer satisfaction in the formation of customers' purchase intentions. *Journal of Retailing,* 70(2):163-178.

Tian-Cole, S. & Crompton, J.L. 2003. A conceptualization of the relationships between service quality and visitor satisfaction, and their links to destination selection. *Leisure Studies,* 22:65-80.

Tisdell, C. 2003. Economic aspects of Ecotourism: Wildlife-based tourism and its contribution to nature. *Sri Lankan Journal of Agricultural Economics,* 5(1):83-95.

Tisdell, C. & Wilson, C. 2001. Wildlife-based tourism and increased support for nature conservation financially and otherwise: Evidence from sea turtle ecotourism at Mon Repos. *Tourism Management,* 7(3):233-249.

Toa, C.H., Eagles, P.F.J. & Smith, S.L.J. 2004. Profiling Taiwanese ecotourists using a self-definition approach. *Journal of Sustainable Tourism,* 12(2):149-168.

Tonge, J. & Moore, S.A. 2007. Importance-satisfaction of marine park hinterlands: A Western Australia case study. *Tourism Management*, 28(3):768–776.

Tourism Western Australia. 2006. *Ecotourism vs Nature Based Tourism.* [Online] Available from: http://www.tourism.wa.gov.au/Publications Library/Growing Your Business/Ecotouris m vs Nature Based Tourism v3 260706 (final).pdf [Accessed: 2013-04-17].

Tribe, J. & Snaith, T. 1998. From SERVQUAL to HOLSAT: holiday satisfaction in Varadero, Cuba. *International Journal of Tourism Management,* 19(1):25-34.

Tsi, E.A., Nji, A. & Mühlenberg, M. 2008. The willingness to pay (WTP) for the conservation of wild animals: Case of the Derby Eland (Taurotragus derbianus gigas) and the African wild dog (Lycaon pictus) in North Cameroon. *African Journal of Environmental Science and Technology*, 2(3):51-58.

UNWTO. 1995. *Concepts, Definitions and Classifications for Tourism Statistics.* Madrid,Spain: World Tourism Organization.

Uysal, M. & Hagan, L. 1993. Motivations of pleasure travel and tourism. In: Khan, M., Olsen, M. & Var, T. (eds.), *Encyclopaedia of hospitality and tourism.* New York: Van Nostrand Reinhold.

Uysal, M., McDonald, C.D. & Martin, B.S. 1994. Australian visitors to US national parks and natural areas. *International Journal of Contemporary Hospitality Management,* 6(3):18-24.

Valentine, P. & Birtles, A. 2004. Wildlife Watching. In: Higginbottom, K. (ed.) *Wildlife Tourism: Planning, Impacts and Management.* Melbourne: Common Ground Publishing.

Van Aarde, R., Whyte, I. & Pimm, S. 1999. Culling and the dynamics of the Kruger National Park African elephant population. *Animal Conservation*, 2:287-294.

Van der Merwe, P. & Saayman, M. 2008. Travel motivations of tourists visiting Kruger National Park. *Koedoe,* 50(1):154-159.

Van der Merwe, P. & Saayman, M. 2014. Factors influencing a memorable game viewing experience. *African Journal of Hospitality, Tourism and Leisure,* 3(2):1-17.

Van Tonder, C., Saayman, M. & Krugell, W. 2013. Tourists' characteristics and willingness to pay to see the big five. *Journal of Economic and Financial Sciences,* 6(3):631-644.

Wagner, F.H. 1989. American wildlife management at the crossroads. *Wildlife Society Bulletin,* 17(3):354-360.

Ward, J. 1996. *Leisure and Tourism Assignments.* 2nd ed. England: Stanley Thornes Publishers Ltd.

Weaver, D.B. 2005. Comprehensive and minimalist dimensions of ecotourism. *Annals of Tourism Research,* 32(2):439-455.

Webb, D. 2003. Investigating the structure of visitor experiences in the Little Sandy Desert, Western Australia. *Journal of Ecotourism*, 1(2):149-161.

Wemmer, C. & Sunquist, M. 1988. *Felid reintroductions: economic and energetic considerations.* [Online] Available from: http://www.snowleopardnetwork.org/bibliography/Wemmer_Sunquist_1988.pdf [Accessed: 2013-07-21].

Western Cape Tourism. 2012. *Western Cape Annual Tourism Trends.* [Online] Available from: http://www.wesgro.co.za/publications/publication/2012-annual-western-cape-tourism-trends.pdf [Accessed: 2013-06-15].

Woods, B. 2000. Beauty and the beast: preferences for animals in Australia. *The Journal of Tourism Studies*, 11(2):25-35.

Zawacki, W.T., Marsinko, A. & Bowker, J.M. 2000. A travel cost analysis of non-consumptive wild-associated recreation in the United States. *Forest Science,* 46(4):496-506.

Zikmund, W.G. 2003. *Essentials of Marketing Research,* 2nd ed. Ohio: South-Western.

Zikmund, W.G. & Babin, B.J. 2010. *Essentials of Marketing Research*, 4th ed. Australia: South-Western – Cengage Learning.

APPENDIX A

- Data collection instrument -

- SURVEY QUESTIONNAIRE -

THE RELATIVE IMPORTANCE OF ICONIC ANIMALS IN SELECTED SANPARKS

Dear respondent

Thank you for your willingness to complete this survey. The purpose of the survey is to determine the relative importance of the presence of iconic animals (elephant, rhinoceros, buffalo, lion, leopard, wild dogs, cheetah, giraffe, hippo) in selected SANParks and the influence they have on visitor numbers, types of visitors and their willingness to pay for the presence of iconic animals. The survey should not take more than **10-15 minutes** to complete. This is an anonymous and confidential survey. You cannot be identified and the answers you provide will be used for research purposes only.

Please answer all the questions by placing a cross (✖) in the appropriate block. There are no right or wrong answers. We are interested in understanding your perception of the relative importance of the presence of iconic animals in selected parks and their effect on visitor types and numbers as well as the economic considerations.

Q1. How many times (in the last 5 years) have you visited the following parks? *(Please fill in the number of visits to each park).*

		Overnight Visits (accommodation included)	Day Visits
1	Augrabies Falls National Park		
2	Kgalagadi Transfrontier Park		
3	Mokala National Park		
4	|Ai-|Ais/Richtersveld Transfrontier Park		
5	Agulhas National Park		
6	Bontebok National Park		
7	Table Mountain National Park		
8	Tankwa Karoo National Park		
9	West Coast National Park		
10	Addo Elephant National Park		
11	Camdeboo National Park		
12	Karoo National Park		
13	Mountain Zebra National Park		
14	Namaqua National Park		
15	Garden Route National Park (Knysna, Tsitsikamma, Wilderness sections)		
16	Kruger National Park		
17	Golden Gate Highlands National Park		
18	Mapungubwe National Park		
19	Marakele National Park		

Q2. How did you hear about the national parks you visited? *(Please select all applicable options).*

		Word of mouth (friend / family / colleague)	SANParks / other Website	Social Media forum (Facebook / Twitter / Blog)	Printed publication (newspaper / magazine)	Brochure	Radio	Television programme	Tourism / Information office	Shows / exhibitions (eg. Getaway Show / Indaba)
1	Augrabies Falls National Park									
2	Kgalagadi Transfrontier Park									
3	Mokala National Park									
4	|Ai-|Ais/Richtersveld Transfrontier Park									
5	Agulhas National Park									
6	Bontebok National Park									
7	Table Mountain National Park									
8	Tankwa Karoo National Park									
9	West Coast National Park									
10	Addo Elephant National Park									
11	Camdeboo National Park									
12	Karoo National Park									
13	Mountain Zebra National Park									
14	Namaqua National Park									
15	Garden Route National Park (Knysna, Tsitsikamma, Wilderness sections)									
16	Kruger National Park									
17	Golden Gate Highlands National Park									
18	Mapungubwe National Park									
19	Marakele National Park									

Q3. Which park within SANParks (from the list above in Q2) would you prefer to visit next? Please also provide a reason why you choose that specific park. *(Please choose one park only).*

Preferred park	
Reason for choice	

Q4. A number of statements describing different motives or reasons why people generally visit National Parks are listed below. Please read each statement carefully and indicate how likely you would consider the statement as a motive or reason to personally visit **any** National Park. In other words what **generally motivates you** to visit **any** National Park? (*Please select one rating per statement only*.)

		Very unlikely	Unlikely	Neutral	Likely	Very likely
1	Relaxation	1	2	3	4	5
2	Novelty (experience something new)	1	2	3	4	5
3	Escape / Solace	1	2	3	4	5
4	Status (destination image)	1	2	3	4	5
5	Education/learning about nature (fauna & flora)	1	2	3	4	5
6	Participation in recreation or leisure activities	1	2	3	4	5
7	Adventure	1	2	3	4	5
8	Hiking / Walking	1	2	3	4	5
9	Viewing the "Big 5" / Iconic animals	1	2	3	4	5
10	Culture	1	2	3	4	5
11	Nature	1	2	3	4	5
12	Game viewing	1	2	3	4	5
13	Social contact	1	2	3	4	5
14	Events	1	2	3	4	5
15	Photography	1	2	3	4	5
16	Quality of accommodation and facilities	1	2	3	4	5
17	Popularity of the parks	1	2	3	4	5
18	Explore a new destination	1	2	3	4	5
19	Location (accessibility)	1	2	3	4	5
20	Experience wildlife (active participation – eg. Elephant rides)	1	2	3	4	5
21	Remoteness	1	2	3	4	5
22	All inclusive packages	1	2	3	4	5
23	Conservation efforts	1	2	3	4	5

Q5. Which specific aspects do you believe or think would make each of the following parks attractive? Please choose the 5 most important aspects to you that would attract you to each of these parks specifically. Consider each park **separately**. (*Please indicate the 5 choices with a* **X***).*

		Addo Elephant NP	Karoo NP	Mountain Zebra NP	Kruger NP
1	Game viewing				
2	Bird Watching				
3	Guided Game drives				
4	Self-drive game drives				
5	Guided Game walks				
6	Hiking				
7	Interactive cultural experience				
8	4 x 4 Trails				
9	Animal Tracking				
10	Viewing the "Big 5" / Iconic animals				
11	Volunteering				
12	Exotic spa offers in the bush				
13	Quality & type of accommodation				
14	Cuisine (dining experience)				
15	Size of the reserve				
16	Experience the bush (biodiversity)				
17	I don't know				

Q6. If iconic animals are introduced into a park which currently does not have them, would you visit the park now that iconic animals are present?

Yes	1
No	2

Q7. Please indicate with a **X** which of the following animals **you think** are present in the parks listed below. *(Your first impression is important as awareness is tested)*

		Elephant	Rhino	Buffalo	Lion	Leopard	No "Big 5"	I **really** don't know
1	Addo Elephant NP							
2	Karoo NP							
3	Mountain Zebra NP							
4	Kruger National Park							

Q8. Would you visit a national park where NO iconic animals are present?

Yes	1
No	2

Q9. Would you choose to visit to the following parks **specifically** to see the "Big 5". (*Please indicate your option with a X and provide a reason for your answer)*

	Addo Elephant NP	Karoo NP	Mountain Zebra NP
Yes	1	1	1
No	2	2	2
Reason why	3	3	3

Q10. How important is it for you to view the individual iconic animals in national parks? Please rate the importance of each of individual iconic animal to you. (*Please select one rating per animal only*.)

		Not important at all	Less important	Neutral	Important	Extremely important
1	Elephant	1	2	3	4	5
2	Buffalo	1	2	3	4	5
3	Rhino	1	2	3	4	5
4	Lion	1	2	3	4	5
5	Leopard	1	2	3	4	5
6	Cheetah	1	2	3	4	5
7	Wild dog	1	2	3	4	5
8	Hippo	1	2	3	4	5
9	Giraffe	1	2	3	4	5
10	Other *(specify and rate):*	1	2	3	4	5

Q11. Please indicate which animal you **always** look for when visiting a national park and why you specifically want to see that animal?

Animal	
Reason for choice	

FINANCIAL CONSIDERATIONS

Q12. Approximately how much **on average per person** do you spend for your whole visit when visiting a Park (all costs, including travel)?

R

Please separate the total amount into the following categories by indicating the approximate percentage spent on each of the following. *(The percentages must add up to a 100%).*

	Percentage
Accommodation	1
Food & Beverages	2
Activities	3
Transport to the park	4
Transport in the park	5
Entrance fee / Conservation fee	6
Other *(please specify):*	7
Total	100%

Q13. Would you pay more to visit a park where the "Big 5" or the iconic animals are present (as opposed to a park in which they are absent)?

Yes		1	→ **Go to Q14**
No		2	→ **Go to Q15**

Q14. How much more are you prepared to spend to see the "Big 5" or iconic animals in the selected Parks? Please indicate the percentage of how much more you would be prepared to spend per category. *(Please place a zero if you wouldn't be prepared to pay anything more in the relevant category).*

	Percentage
Accommodation	1
Food & Beverages	2
Activities	3
Transport to the park	4
Transport in the park	5
Entrance fee / Conservation fee	6
Other *(please specify):*	7

DEMOGRAPHICS

Please provide the following information regarding your profile. (*Select only <u>one</u> item in each of the categories.*)

Q15.   Please indicate your gender

Male	1
Female	2

Q16.   Please indicate if you have children

Yes	1
No	2

Q17.   How old are you?

Q18.   Please indicate your race *(for statistical purposes only)*

African	1
Indian/Asian	2
Coloured	3
White	4
Other *(please specify):*	5

Q19.   Where do you live?

Gauteng	1
North West	2
Limpopo	3
The Free State	4
KwaZulu Natal	5
Mpumalanga	6
The Western Cape	7
The Eastern Cape	8
The Northern Cape	9
International *(please specify country)*:	10

Q20.   Please indicate how many people you generally travel with when visiting a Park.

_____ people *(including yourself).*

Q21. Who are your companions with whom you **mostly** travel when visiting a Park? *(More than one option may be selected)*

Alone	1
As a couple	2
As a family (with children)	3
Friends	4
Organised group	5
Other *(please specify):*	6

Q22. Please indicate how long you generally stay when visiting a SANPark. Please also indicate if you would consider staying longer if the "Big 5" or iconic animals were present in the following parks.

		Typical stay (number of days)	Additional number of days *(place a zero if no extra days)*
1	Addo Elephant NP		
2	Karoo NP		
3	Mountain Zebra NP		

Q23. Please indicate your *highest* degree or level of education (*Please tick only one option*)

Primary school education	1
Grade 12	2
Diploma / National certificate	3
Degree	4
Post graduate degree	5
Other *(please specify):*	6

Q24. Please indicate your average monthly **net** income (in Rand).
Average exchange rate: 1$ = R10.50, 1€ = R15, 1£ = R18

Less than R20 000	1
R20 001 – R40 000	2
R40 001 – R60 000	3
More than R60 000	4

Thank you for participating in this survey!
I appreciate and value your assistance.

APPENDIX B

- Cover letter & Informed consent form -.

COVER E-MAIL MESSAGE SENT TO POTENTIAL RESPONDENTS

Dear respondent

You are invited to participate in an academic research study conducted by Irma Meyer, a Masters student from the Division Tourism Management at the University of Pretoria.

The purpose of the study is to determine the **relative importance of the presence of iconic animals in selected SANParks and their effect on the type of visitors as well as the visitor numbers.** The study also incorporates the **economic considerations** of introductions and/or reintroductions of iconic animals in the selected SANParks.

Please note the following:

- This study involves an <u>anonymous</u> survey. Your name will not appear on the questionnaire and the answers you give will be treated as strictly <u>confidential</u>. You cannot be identified in person based on the answers you give.
- Your participation in this study is very important to the research. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.
- The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.
- You are welcome to contact my study leader, Prof B.A. Lubbe, on tel. (012) 430-4102 (email: berendien.lubbe@up.ac.za) if you have any questions or comments regarding the study.
- Please answer the questions in the attached questionnaire as completely and honestly as possible. This should not take more than 10-15 minutes of your time.
- The email contains a link to a page where you will find the questionnaire. Please fill in the questionnaire by clicking on the desired option or typing in the required open-ended questions. Please remember once you have submitted, your answers cannot be changed.

By completing the questionnaire, you will indicate that:

- You have read the information provided above.
- You give your consent to participate in the study on a voluntary basis.

Please follow the link below to access the online questionnaire:

https://tuks.qualtrics.com/SE/?SID=SV_ezdXZ0IadEQtXYF

Thank you for your kind assistance.

Sincerely,

Irma Meyer
Cell: 072 033 9305

Faculty of Economic and Management Sciences

Informed consent for participation in an academic research study

Dept. of Tourism Management

THE IMPACT ON VISITATION AND THE RELATIVE IMPORTANCE OF ICONIC ANIMALS AS TOURIST ATTRACTION IN SELECTED SANPARKS.

<u>Research conducted by:</u>
Ms. I. Meyer (29373914)
Cell: 072 033 9305

Dear Respondent

You are invited to participate in an academic research study conducted by Irma Pape, a Masters student from the Division Tourism Management at the University of Pretoria.

The purpose of the survey is to determine the relative importance of the presence of iconic animals in selected SANParks and the influence they have on visitor numbers, types of visitors and their willingness to pay for the presence of iconic animals.

Please note the following:

- This study involves an <u>anonymous</u> survey. Your name will not appear on the questionnaire and the answers you give will be treated as strictly <u>confidential</u>. You cannot be identified in person based on the answers you give.

- Your participation in this study is very important to us. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.

- Please answer the questions in the attached questionnaire as completely and honestly as possible. This should not take more than 10-15 minutes of your

- The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.

- Please contact my supervisor, Prof B.A. Lubbe, on tel. (012) 430-4102 (email: berendien.lubbe@up.ac.za) if you have any questions or comments regarding the study.

Please sign the form to indicate that:

- You have read and understand the information provided above.

- You give your consent to participate in the study on a voluntary basis.

_____   _____
Respondent's signature   **Date**

APPENDIX C

- Ethical clearance -

**FACULTY OF ECONOMIC AND
MANAGEMENT SCIENCES**

RESEARCH ETHICS COMMITTEE

**Tel: +27 12 420 4102
E-mail: berendien.lubbe@up.ac.za**

1 November 2013

Strictly confidential

Prof BA Lubbe
Division: Tourism Management

Dear Professor Lubbe

Project:	***The impact on visitation and economic implications of iconic animals as tourist attraction in selected SANParks***
Researcher:	**I Pape**
Student No:	**29373914**
Supervisor:	**Prof BA Lubbe**
Department:	**Tourism Management**

Thank you for the application you submitted to the Committee for Research Ethics, Faculty of Economic and Management Sciences.

I have pleasure in informing you that the Committee formally approved the above study on 30 October 2013. The approval is subject to the candidate abiding by the principles and parameters set out in the application and research proposal in the actual execution of the research.

The approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Codes of Research Ethics of the University of Pretoria if action is taken beyond the approved proposal.

The Committee requests that you convey this approval to the researcher.

We wish you success with the project.

Sincerely

**PROF BA LUBBE
CHAIR: COMMITTEE FOR RESEARCH ETHICS**

cc: Student Administration

Members: Prof BA Lubbe (Chair); Prof RS Rensburg (Deputy Chair) ; Prof HE Brand; Dr CE Eresia-Eke; Prof JH Hall; Prof JF Kirsten; Dr MC Matthee; Prof JE Myburgh; Dr SG Nienaber; Ms K Plant; Prof C Thornhill; Prof R van Eyden; Prof SR van Jaarsveld, Dr M Wiese
Administrative officer: Mr M Deysel