

# THE CONTRIBUTION OF SHARK CAGE DIVING TOURISM TO COASTAL ECONOMIES: A CASE STUDY OF A COASTAL TOWN IN THE WESTERN CAPE, SOUTH AFRICA

by

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Mabaleke

05 March 2026

Signed

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#### **ABSTRACT**

Coastal and Marine Tourism (CMT) is a sector which continues to draw visitors from different countries to South Africa. This is attributable to the long coastline and abundance of marine wildlife found in South African waters. Despite the strong interest in visiting South Africa's marine environment, there is limited information on the economic contribution of CMT in South Africa. Shark cage diving offered in Gansbaai, Western Cape, South Africa draws a large number of visitors globally, thereby providing benefits to visiting tourists and socio-economic benefits to the area. This study focuses on determining the profile of visitors who engage in shark cage diving in Gansbaai and expenditure patterns related to shark cage diving in respect of the Gansbaai economy, as well as the role that shark cage diving plays in tourists' (domestic and international) decisions to visit South Africa.

The study applied a quantitative research approach, with self-administered survey questionnaires (face to face) distributed to visitors after a shark cage diving experience in Gansbaai. A proportionate sampling approach was adopted for the study; this sampling method was suited to this research as it excluded locals from the sampling, thus randomly selecting visitors from outside the Gansbaai region. In total, 378 survey questionnaires were collected, analysed and interpreted.

In terms of profiling, the study revealed that the majority of visitors participating in shark cage diving in Gansbaai are international visitors, with a reasonable disposable income, as the activity proved costly. Of these international visitors, the majority were day visitors to Gansbaai, thus restricting spending in the area. With regard to expenditure patterns, the relatively few overnight visits to Gansbaai make it difficult to exploit the maximum socio-economic benefits associated with shark cage diving, as the local economy is heavily dependent on this activity. Furthermore, the study also revealed that shark cage diving in Gansbaai was a factor in international visitors' decisions to visit South Africa, with the activity not holding as much attraction for South Africans.

As the study uncovered an interest in marine-based activities and a growing appeal in naturebased activities, it recommends that the development of a more diverse offering in Gansbaai will contribute to greater economic spend in the area. This has the potential to appeal to the domestic market to participate in shark cage diving. Package tours and discounted prices for domestic visitors could assist in highlighting other attractions in the Gansbaai region and increase domestic participation in such activities. These package tours will in return encourage economic activity in the area which will result in greater expenditure by visitors. Further studies on this activity are underscored as a lack of understanding may have serious implications for tourists, tourism in the area, tourism destination planners, tour operators, and tourism establishments in Gansbaai.

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## **DEDICATION**

To my late brother, Loyiso Malcolm Mabaleka.

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## ABBREVIATIONS AND ACRONYMS

BoP Balance of Payments

CBA Cost Benefit Analysis

CMT Coastal and Marine Tourism

DAFF South Africa. Department of Agriculture, Forestry and Fisheries

DEA South Africa. Department of Environmental Affairs

ENVP Economic Net Present Value

ERR Economic Rate of Return

GCE Computable General Model

GDP Gross Domestic Product

I-O Input-Output Model

ICM Integrated Coastal Management

ICMTS International Coastal and Marine Tourism Society

IPCC Intergovernmental Panel on Climate Change

IUCN International Union for Conservation of Nature

MLRA Marine Living Resources Act

MMO Marine Management Organisation

MPA Marine Protected Area

MSP Marine Spatial Planning

NDT South Africa. Department of Tourism

NOAA National Oceanic and Atmospheric Administration

NOEP National Ocean Economics Program

OECD Organisation for Economic Co-operation and Development

SAMSA South African Maritime Safety Authority

SAT South African Tourism

SPSS Statistical Package for the Social Sciences

Stats SA Statistics South Africa

TSA Tourism Satellite Account

UNCTAD United Nations Conference on Trade and Development

UNEP United Nations Environment Programme

UNESCO United Nations Educational, Scientific and Cultural Organisation

UNWTO United Nations World Tourism Organization

WWF – SA World Wide Fund – South Africa

#### **CHAPTER ONE**

#### **ORIENTATION OF THE STUDY**

## 1.1 Introduction and rationale for the study

Tourism has been acknowledged as one of the key economic sectors in South Africa, and one that continues to grow. According to Statistics South Africa (2018:5), 96.6% of foreign arrivals into the country were for holiday purposes. This strongly emphasises the significance of South Africa as a holiday destination. According to Aguiló-Perez and Juaneda (2000:627) and Vainikka (2013:270), tourists generally choose a coastal holiday destination. One of the major tourist attractions in South Africa is the marine life found at various points along the coastline, stretching over 3000 kilometres (Operation Phakisa, 2015b). According to the South African Maritime Safety Authority (2016a), marine tourism is among the top four sub-sectors of the maritime sector in the country and phenomenal growth is projected for the next two decades. The South African Maritime Safety Authority (SAMSA) notes that marine tourism contributed a total of R19 billion in 2013 to the country's Gross Domestic Product (GDP), is estimated to contribute a total of R44 billion in the year 2020 and to create employment opportunities for 800 000 to 1 million individuals (South African Maritime Safety Authority, 2016b). This proves the phenomenal growth of this sector and justification for further development.

Two-thirds of the planet's surface area comprises the marine environment (Cheung et al., 2012:255), therefore making it a major drawcard for tourism and recreational activities (Kenchington, 1993:10). Previous years have shown a growth in nature-based tourism, both in marine areas as well as species (Lange & Jiddawi, 2009:521; Vianna et al., 2012:267; Guerra & Dawson, 2016:3). Anderson et al. (2011:20) provide examples of tourism activities such as diving and snorkelling with manta rays and seals, and with sharks, as well as turtle and whale watching. Therefore, the quest for opportunities to watch as well as interact with megafauna in their natural habitat is increasing worldwide (Du Preez et al., 2012:387; Vianna et al., 2012:267; Neff & Yang, 2013:546).

Marine tourism is identified as the one area of tourism contributing significantly to global economies (Seymour, 2012:19). At the United Nations Conference on Trade and Development

(UNCTAD) held in 2014, coastal and marine tourism was acknowledged among those key sectors contributing towards the development of the oceans economy, further strengthening the notion of marine tourism's global recognition as a strong contributor to tourism economies (United Nations Conference on Trade and Development, 2014:4).

Coastal and marine ecosystem services have played a critical role in disadvantaged communities, particularly in developing countries (Lange & Jiddawi, 2009:521). The occurrence of marine animals in certain areas could mean that tourism in such areas contributes to local communities with few income-generating alternatives. Numerous studies (Kariel & Kariel, 1982; Hall, 2001; Dicken & Hosking, 2009; O'Malley et al., 2013) have been conducted on the contribution of the oceans to national economies. A study conducted in 2008 revealed that shark cage diving was offered in 119 countries and included around 13 million participants a year, generating recognisable benefits for operators as well as supporting businesses in the area (O'Connor et al., 2009:295). A further study conducted in 2012 identified shark diving as a significant contributor to the economy of Palau, generating about US\$18 million per year and accounting for about 8% of the GDP (Vianna et al., 2012:268). This emphasises the economic contribution of marine activities to other marine destinations globally.

Towns and cities along the coast often rely on activities where the marine environment can provide ecosystem services such as fishing that contribute to economic growth and wellbeing (Marine Management Organisation, 2013:5). For instance, in Europe, coastal and marine tourism (CMT) is one of the recognised sectors that contribute to employment with more than 2.3 million people employed (European Commission, 2014:2).

Despite all the above-mentioned benefits of activities linked to CMT, the marine environment is said to be at risk owing to exploitation for economic benefit (Papageorgiou, 2016:47). Spalding et al. (2013:220) note that less than 2.3% of the Earth's oceans are protected. Barker and Roberts (2008:180) state that Marine Protected Areas (MPAs) are therefore those areas which allow for opportunities for conservation management and to regulate visitor activities with an environmental management perspective, while Page and Connell (2009:645) note that MPAs are water-based reserves with protective policies for marine life. With a notably growing CMT sector around the world, it therefore is important to address conservation issues in order to ensure a sustainable CMT industry. Harriott (2002:22) adds that marine activities, the dive industry in particular, are heavily dependent on MPAs and that MPAs are viewed as an excellent

tool by tourists and conservationists alike. In South Africa, MPAs are proclaimed in terms of Section 43 of the Marine Living Resources Act (MLRA), No. 18 of 1998, which regulates both exploitation and conservation of marine living resources (World Wide Fund for Nature, 2014:4). Operation Phakisa (2014) under its sectors also aims to create an MPA representative network to safeguard biodiversity and the ocean ecosystem as well as facilitate sustainable development.

The South African government, through the Department of Planning, Monitoring and Evaluation, launched Operation Phakisa in July 2014 (Operation Phakisa, 2014). Operation Phakisa is meant to improve the GDP and the socio-economic livelihoods of disadvantaged communities in the country through job creation by utilising the economic potential of South Africa's waters (Operation Phakisa, 2014). Operation Phakisa was conceptualised from analysing and adopting aspects of the Malaysian marine cadastre conceptual model (Institute for Global Dialogue, 2016:4). There are various definitions of marine cadastre; however, in the Malaysian model, marine cadastre was defined as a marine management system that considers who has special rights, restrictions and responsibilities for marine space activities (Abdullah et al., 2014:1). The implementation of this concept is in a development process, with the collaboration of local universities and the Malaysian Directorate of Survey Office (Abdullah et al., 2014). The Institute for Global Dialogue (2016:4) also notes that there are 250 000 jobs directly linked to various maritime regimes locally, but with Operation Phakisa this number could be up-scaled to a million jobs. Operation Phakisa (2014) has identified six focus areas:

- Marine protection services and governance
- Coastal and Marine Tourism
- Aquaculture
- Small harbours
- Marine transport and manufacturing
- Offshore and oil gas exploration

In relation to CMT, the government seeks to identify high impact, coastal tourism initiatives, interventions and projects, and analyse the current and potential future contribution of CMT to non-urban coastal tourism (Operation Phakisa, 2014). This then directs the study to an area within the CMT sector.

Gansbaai is a small town on the Whale Coast, in the Overberg District Municipality of the Western Cape, with a large concentration of Southern Right Whales and Great White Sharks that attract a large number of visitors to the area (SA-Venues, 2016). Gansbaai has also been labelled "The great white capital of the world" (Gansbaai Info, 2016). According to Mograbi and Rogerson (2007:91), dive tourism is considered a type of niche tourism in South Africa. Shark cage diving therefore falls into this category and is a recognised visitor activity in the country (Cape Town Magazine, 2016).

Canada's Department of Fisheries and Oceans (2016) notes that direct, indirect and induced demand articulated through the specific goods and services required within an industry and its consumers leads to economic impacts. For the purposes of this study, direct impact would be on the tour operators offering shark cage diving in Gansbaai, indirect impact would be on the accommodation, restaurants, retailers and transport utilised by visitors, and induced demand is those persons employed by the operators. In order to be able to measure economic impacts, data on various marine activities and their gross outputs need to be selected and analysed (Canada. Department of Fisheries, 2016). In the case of shark cage diving, gross value of output would be revenue generated through sales.

Models such as the general equilibrium and economic base models have been used to quantify economic impact studies in marine tourism (Stynes, 1997:6; Holmes et al., 2015:68). According to Stynes (1997:3), in order to assess how much tourism activity contributes to a region's economy, an economic impact analysis should be completed. Stynes (1997:6) points out that some of the key questions that need to be addressed when doing an economic impact study are as follows:

- How much income do households and businesses earn from tourism?
- How much employment does tourism support in the area?
- What tax revenue does tourism generate?
- What portion of the local business sales can be attributed to tourism?
- How much spending do tourists do in the area?

Frechtling (1994:430) argues that in measuring economic impacts, secondary data from governmental economic statistics, economic base models, input—output models, multipliers and visitor spending surveys need to be analysed.

For this study, visitor spending surveys were used to determine the economic impact of shark cage diving in Gansbaai. These criteria therefore were taken into consideration and underpin the design of the instrument and data-collection process. Craig and Douglas (2006:5) confirm that the findings from questions on spending surveys can present relative estimates on visitor expenditure, thus allowing economic impacts to be drawn. Surveys of travellers can be conducted at entry, at exit, or on site. For this study, the surveys were conducted on site with visitors in Gansbaai prior to their shark cage dives. Craig and Douglas (2005:8) add that to determine the spend of visitors to an area chosen for a study is not too complex, and the researcher should also be cognisant of the following considerations:

- The visitor does not live in the study area on a permanent basis
- The visitor purchases or consumes products offered at the study area while visiting

These criteria therefore were taken into consideration and underpin the data-collection process. This further makes this analysis suited to this research study.

The individual travel cost method is based on the surmise that individuals residing far from the recreation site spend more and undertake fewer trips that those residing near the site (Dicken & Hosking, 2009:230). Based on this, the visitor spending survey therefore segmented visitors according to visitors from outside the designated area, thus excluding locals.

According to South Africa.net (2016), adventure ranks fourth on the top ten reasons for visiting South Africa, and shark cage diving is listed under the adventure category. However, other travel sites (*Getaway*, 2015; Go2Africa, 2016; SA-Venues, 2016; Hendricks, 2018) focus on other pull factors such as weather, wildlife, history, affordability, and Cape Town's being among the most visually appealing cities worldwide. This Dissertation also seeks to understand the role played by shark cage diving in Gansbaai as a strong pull factor in visiting South Africa.

There is limited data in South Africa relating to the economic impact of CMT which can provide a better understanding of the economic contribution of CMT and its potential contribution towards the tourism sectors in South Africa. Numerous studies (Dicken & Hosking, 2009; Du Preez & Hosking, 2011; Du Preez et al., 2012) have been conducted on the value of beaches as well as fresh water estuaries, and have highlighted that South African beaches are a vital element in generating value, although the relative worth of the attributes of these beaches and estuaries is

not known. This also concurs with the assertion that the economic contribution of South Africa's coastal and marine destinations is under researched and that limited data exists in these sectors in order to deliver a more robust presentation of the economic contribution of CMT. Thus this study will contribute to the plans and goals that Operation Phakisa seeks to achieve with respect to CMT in the Western Cape in particular.

The next section presents definitions of key terms.

#### 1.2 Definition of key terms

#### 1.2.1 Shark cage diving

Shark cage diving is the act of individuals being partially immersed in water while inside a cage for the opportunity to view sharks in close proximity (Bruce & Bradford, 2013:890). The Department of Environmental Affairs (South Africa. Department of Environmental Affairs, 2017a) concurs with this statement and describes shark cage diving as an activity which involves observing a free-swimming white shark from within a protective cage submerged in water.

#### 1.2.2 Tourism

According to Ugurlu (2010), the definition of tourism varies from source to source and there is no consensus regarding defining tourism. Kenchington (1993:5) defines tourism as the act of exchange in recreational opportunities for economic benefits while the United Nations World Tourism Organization (UNWTO) notes that tourism refers to the activity of visitors (UNWTO, n.d.:13). The UNWTO defines a visitor as:

someone who is making a visit to a main destination outside his/her usual environment for less than a year for any main purpose including holidays, leisure and recreation, business, health, education or other purposes ...This scope is much wider than the traditional perception of tourists, which included only those travelling for leisure.

## 1.2.3 Shark cage diving tourism

Shark cage diving tourism comprises the act of shark cage diving at commercialised locations for leisure purposes and economic gain (White Shark Projects, 2016). According to the Department of Environmental Affairs (South Africa. Department of Environmental Affairs, 2017a), shark cage diving tourism is the act involving the non-consumptive use of sharks for tourism and recreational purposes.

#### 1.2.4 Coastal economy

The National Oceanic and Atmospheric Administration (2011:1) notes that the coastal economy consists of all economic activity which occurs in geographical areas defined as coastal shoreline areas. The National Ocean Economics Program (2017) concurs with this statement, adding that the coastal economy consists of all economic activity in coastal regions. According to the National Ocean Economics Program (2011:1), the ocean economy also identifies elements at risk from changes in environmental conditions within oceans and on coasts.

#### 1.2.5 Coastal town

A coastal town is defined on the basis of municipalities or local administrations and consists of populated regions bordering or in close proximity to the sea (Eurostat, 2017). A municipality bordering the sea is by default in a coastal area. If a municipality is within 10 km from the sea, it is also recognised as a coastal area. However, the Environmental Literacy Council (2015) describes coastal areas as those where the land meets to create an environment with a distinct structure, flow of energy and diversity. Coastal areas include wetlands, estuaries, salt marshes, and mangroves, among others, and are home to various types of fauna and flora.

## 1.3 Statement of the research problem

CMT is a sector which draws visitors from around the globe to South Africa owing to favourable weather conditions and array of marine wildlife. The South African government has initiated plans to accelerate development by focusing on unlocking the potential of CMT to provide

employment and improve the socio-economic conditions of previously disadvantaged communities in the country. Gansbaai, a small town falling into this category, receives a large number of visitors annually to participate in shark cage diving. However, there is little information on the economic impact of shark cage diving and the role played by this activity in visitors' decisions to visit South Africa. This research study therefore seeks to understand the economic impact of shark cage diving in the Gansbaai community by looking at the profile of visitors to the area as well as their expenditure patterns.

#### 1.4 Research aim

The aim of this research is to analyse the contribution of shark cage diving tourism to coastal economies, using Gansbaai coastal town as an area of study.

## 1.5 Research objectives

Proceeding from the problem statement and research aim, the following research objectives of the study were identified:

- To identify the profile of visitors participating in shark cage diving in Gansbaai.
- To determine the expenditure patterns of visitors participating in shark cage diving in Gansbaai.
- To establish the role played by shark cage diving in tourists' decisions to visit South Africa

## 1.6 Research questions

From the research objectives, the study seeks to answer the following research questions:

- What is the profile of visitors participating in shark cage diving in Gansbaai?
- What are the expenditure patterns of visitors participating in shark cage diving in Gansbaai?
- What role does shark cage diving play in tourists' decisions to visit South Africa?

## 1.7 Research methodology

Katz and Martin (1997:2) define research in essence as a study and investigation to discover new facts. Qualitative and quantitative research methods are common research tools in social science (Jick, 1979; Morgan, 2007; Davies & Hughes, 2014). The difference between qualitative and quantitative techniques is that qualitative research methods place reliance on the skills of the researcher to gather data through interviews and observation, while quantitative methods rely on the research instruments used to gather data (Jary & Jary, 1995:513). A quantitative research approach was used for this study. This method was the most appropriate for this study as the researcher wanted to collect statistical data to quantify the subject at hand which was the economic contribution, and that could be achieved using quantitative methods.

## 1.7.1 Target population and sample

The population for a study contains a group, mostly of people from whom the researcher intends to draw conclusions (Heckathorn, 2002:15). Sirayaka-Turk et al. (2011:95) add that the population refers to the entire universe of the elements being studied. Furthermore, according to Research Lifeline (2012:1) defining the population is the first step in a sampling process.

Riley et al. (2000:43) define sampling as the process of selecting appropriate subjects for an identified research study or programme. Veal (2006:43) adds that the sampling decision also depends on the nature of the population to be explored. It is imperative to select an appropriate sample as it is the basis for the success of any research project (Riley et al., 2000:40).

#### 1.7.2 Target population

The population (N) of this project included all visitors who participated in shark cage diving in 2015 from October to December. This is the targeted time period for data collection for the research project in order to meet set deadlines. A tour operator in Gansbaai (Marine Dynamics, 2016) confirmed the number of these visitors to be 5060. The population of this research study thus was N=5060 (Marine Dynamics, 2016). According to the tour operator, this period also includes a larger concentration of domestic visitors compared with other months. This could present a potential bias to the study and is acknowledged as a limitation.

## 1.7.3 Sampling method

Quite often the research hypothesis refers to a group or identifies a particular population that will be studied (Sirakaya-Turk et al., 2011:40). Simon and Goes (2013:53) note that sampling follows after a population has been clearly defined. Choosing a sampling frame is an important next step in a sampling procedure; therefore, for this research study, a proportionate sampling method was employed. This method is useful if the population comprises a number of subgroups which differ in number. The number of participants resulting from each subgroup is determined by their number relative to the whole population (Hansen et al., 1993:180). In applying this method, the intention was to capture both international and domestic visitors. This sampling method was useful for this research as it excluded locals from the sampling, thus randomly selecting visitors from outside the Gansbaai region. A tour operator noted that November to January was more popular with domestic travellers as opposed to other months of the year (Marine Dynamics, 2016). According to the statistics from the tour operator, of the total (*N*) of 5060, 4626 are international visitors (91%) and 434 are domestic visitors (Marine Dynamics, 2016).

## 1.7.4 Sample size

Based on the 2015 figures from Marine Dynamics (2016), a sample size (n) of 361 was recommended for the (N) of 5060 in order to reach a 95% confidence level (Krejcie & Morgan, 1970:608). Based on proportionate sampling, the sample size for international and domestic visitors will be n=319 and n=42 respectively.

#### 1.7.5 Pilot study

Van Teijlingen and Hundley (2002:34) describe a pilot study as a straightforward way of testing that the procedure as well as the articulation of the methods selected for the study is adequate to support the research objectives. According to Simon and Goes (2013:45), a pilot study represents a trial run to prepare for the actual study. Therefore, it is beneficial to conduct a pilot study to determine if the items will be effective in obtaining the information required (Arain et al., 2010:4). Adjustments are then made where necessary to ensure the effectiveness of the research instrument. For this study, a pilot study was scheduled to be conducted in October 2016 in order for the researcher to proceed with the study soon after; however because of the

delay in obtaining ethical clearance, the pilot was conducted in January 2017. The pilot questionnaires were not analysed and therefore there were no results recorded from the pilot. The pilot was conducted to test the instrument only.

## 1.7.6 Survey instrument

A structured, closed-ended and self-administered survey was used for this study to target visitors participating in shark cage diving in Gansbaai. The survey aimed to collect information on the profile and expenditure patterns of the shark cage diving industry in this region as well as to determine if these visitors were drawn to South Africa because of shark cage diving. The profile section encompassed place of origin and group dynamics, as well as general statements of why people participate in shark cage diving. Demographic information such as education, occupation, gender and age was also regarded as part of the visitor profile section, even though solicited at the end of the survey. The expenditure section focused on the size of group, spending activities such as categories of accommodation, transport and dining, as well as shopping activities while in Gansbaai and the Western Cape. The survey was constructed in English, considering the time and budget constraints of the researcher.

The surveys were distributed from January to April 2017 in Gansbaai. This took place at various shark cage diving points as arranged with tour operators who agreed to assist with the data-collection process. A survey with a brief description of the research study was distributed to the visitors before the shark cage dive. The researcher with an assistant fieldworker conducted the data-collection process. The fieldworkers conducted the data-collection process mindful of the ethical considerations pertinent to the research study.

The following preliminary considerations prompted the construction of the survey instrument:

#### Visits data

This included the group size and length of stay as well as repeat visits data.

## Study region

The survey measured spending in Gansbaai and elsewhere in the Western Cape, and thus separated spending in different locations.

## Spending categories

- Different accommodation categories
- Food and beverages divided between restaurant meals and groceries
- Transport divided between public transport and fuel purchase
- Other recreational activities
- Souvenirs
- Other retail purchases such as clothing
- Local visitors

The survey excluded local visitors and focused on visitors from outside the Gansbaai region.

Shark cage diving as a drawcard
 The survey sought to determine if shark cage diving is a strong pull factor for visitors planning a trip to South Africa.

#### 1.8 Analysis of data

The survey was analysed using the Statistical Package for the Social Sciences (SPSS), Version 24.0. IBM (2010) describes SPSS Version 24.0 as robust, powerful analytical software that provides all SPSS features and has capabilities that deliver faster performance, more efficient processing of large databases, as well as enhanced security in enterprise deployments.

#### 1.9 Significance of the study

A key challenge is the availability of data to measure the economic impact of CMT. In South Africa, there is currently (2018) limited data available relating to the economic impact of CMT which could provide a better understanding of the economic contribution of CMT and its potential contribution towards tourism in South Africa. No studies have been conducted in Gansbaai to determine the economic impact of shark cage diving, which is what the town is predominantly known for. Therefore, this study will assist in a greater understanding of the contribution of shark cage diving tourism on the coastal economy of Gansbaai area to better inform the contribution of the oceans to job creation, growth of the GDP and unlocking the potential of the oceans as highlighted by Operation Phakisa. Since this is the first study of its kind in Gansbaai, it can benefit marine destinations all over South Africa. This study will serve as a basis of

understanding the need to invest in more research on CMT as well as give an indication of the potential contribution of marine based activities to the economy.

#### 1.10 Ethical considerations

Babbie and Mouton (2001:520) suggest that ethical considerations derive from our interaction with other people, other creatures and the environment. Sales and Folkman (2000:20) add that when planning to conduct research, one needs to be cognisant of the general agreements among researchers with regard to what is acceptable and unacceptable while pursuing a research enquiry. Furthermore, ethical issues are not as simple as they appear. According to Seale (2012:58), ethical issues are not easy to explain and even harder to practise, yet are the fundamentals of ethical decision making. Even so, ethical practice is fundamental to any research approach, and according to Seale (2012:59) is part of the craft of competent social research. Ethics played a pivotal role in guiding the researcher and the research process in this study. A detailed application of ethics in this study in presented in Chapter 3.

## 1.11 Delineation of research

The study took place in Gansbaai, Western Cape, and was restricted to those visitors participating in shark cage diving.

## 1.12 Chapter outline

This study is presented in five chapters as indicated below.

## Chapter 1

This chapter provides an introduction and background to the study and presents the focus areas as well as the methods employed in the study.

## Chapter 2

The literature relevant to this study is discussed in this chapter. It focuses on five main themes: the origin of CMT, the challenges of CMT, the profile of CMT visitors, the impact of CMT, and diving tourism. A theoretical/conceptual framework of the study is also presented.

## Chapter 3

The methodology of the study, the procedures followed which guided the data-collection process, and the analysis of the data are discussed. The sample size and research instruments are described in detail and ethical considerations are addressed.

## Chapter 4

This chapter presents the findings and interpretation of results from the surveys conducted with visitors.

## Chapter 5

The final chapter provides a summary of the findings and concludes the study. This chapter also provides recommendations as well as the limitations of the study.

## 1.13 Summary

A summary of what the study entails is presented in this chapter. The study seeks to effect an understanding of the contribution of shark cage diving tourism to coastal economies, using Gansbaai as a case study. The execution of the study is mapped by making reference to various approaches and methodologies employed in the study. The next chapter discusses in detail the literature relating to the study and identifies gaps in the existing literature, as well as presenting the theoretical/conceptual framework of the study.

## **CHAPTER TWO**

## OVERVIEW OF COASTAL AND MARINE TOURISM AND ITS CONTRIBUTION TO GLOBAL AND LOCAL ECONOMIES

#### 2.1 Introduction

This chapter discusses literature relevant to coastal and marine tourism. It addresses the significance of CMT and highlights the key impacts of this sector from an environmental, social and economic point of view. This chapter also discusses various perspectives regarding the profile of visitors participating in CMT tourism and methodologies which have been employed in estimating the economic impacts of the marine environment from global to local scale. Additionally, the challenges confronted by this sector are also presented. The chapter further investigates diving tourism and its significance to the local economy. Lastly, the chapter presents in detail the conceptual framework that underpins the study.

## 2.2 Tourism and its significance

For the purposes of this study, a background to the significance of tourism is provided in order to achieve a better comprehension of CMT as well as how it forms part of the broader sector of tourism. It is also provided in order to achieve greater understanding of the results.

Tourism industries and settings are recognised as exciting and innovative, offering various opportunities such as employment and entrepreneurship, often with significant economic benefits to local communities across the globe (Muganda et al., 2017:54). The UNWTO (2010:10) defines tourism as "the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes".

According to the UNWTO (2018:3), the tourism industry involves 200 million employees worldwide and is regarded as a global growth business. The tourism industry is a key player in the global economy as it accounts for 5% of the world's economy. International tourist arrivals

have increased by 30% since 2003 to nearly 900 million in 2007, and the UNWTO forecasts that tourist arrivals will reach 16 billion by the year 2020. This shows that the contribution of tourism cannot be denied and is yet to experience significant growth in the near future. Sequeira and Nunes (2008:224) note that it is therefore no surprise that countries specialising in tourism develop more than others.

Tourism activities contribute to the standard of living of the host population (Soukiazis & Proenca, 2008:45). For example, in order for tourism to be successful, requirements such as relatively good infrastructure, good communication channels, public security and political stability are essential, with local communities also benefiting (Muga, 2009:52). Tourism has been recognised as a beacon of hope for many developing countries for the distribution of wealth internationally and domestically, as well as transferring wealth from wealthier countries to poorer regions (Zapata et al., 2011:726). Over the past decades, tourism has grown steadily and is now among the fastest growing industries in the world (Harriott, 2002:9). The UNWTO (2018) notes that over the past decades tourism has grown exponentially and is one of the fastest growing sectors in the world. This emphasises the consistency of growth the tourism industry has shown over a number of decades. The UNWTO (2016) contends that, to date, the business volume of the tourism sector is so large that it equals or even surpasses that of food products, automobiles and exports. Figure 2.1 overleaf highlights the importance of the tourism industry as well as its significant contribution internationally. According to the UNWTO (2018:9), international tourist arrivals increased by 4.6% in 2015 to 1.184 million, while forecasts by the UNWTO (2018:9) predict these numbers to be 1.8 billion by 2030.

## **WHY TOURISM MATTERS?**



Figure 2.1: Why tourism matters? (UNWTO, 2018:3)

Tourism is recognised as a key sector in international commerce and represents one of the main income sources for many developing nations. According to the Statistical Office of the European Communities (Eurostat, 2017), the tourism industry employs 12 million people in the European Union. However, positions in the tourism industry are less stable than those in the rest of the economy, mostly owing to seasonality. High seasonality and short-term jobs are often not reflected in tourism employment statistics. These are some of the challenges faced by the tourism industry. Figure 2.2 highlights seasonal variation in employment in selected tourism

industries in the European Union in 2014. According to the UNWTO Annual Report (2018:12), Europe by far received the highest number of international visitors in 2017 (671 million) followed by North and South America (207 million), making the European Union the biggest employer globally. This therefore presents a more compounding distribution of employment in the sector.

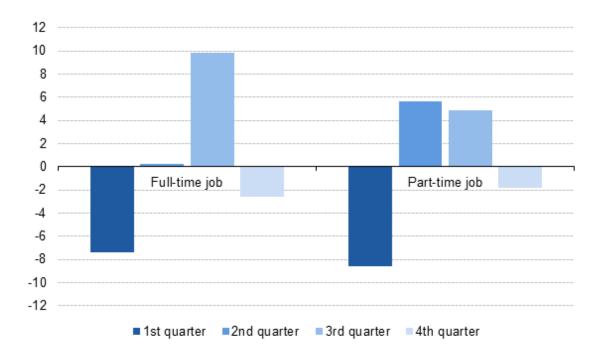


Figure 2.2: Variation in employment in selected tourism industries (Eurostats, 2017)

Figure 2.2 showcases the variation in employment in selected tourism industries namely; accommodation, transport, recreational parks and travel intermediaries. It depicts the nature of seasonality in tourism jobs. The first quarter, regarded as the low season, has fewer full-time as well as part-time job offerings, while the second and third quarters show a higher level of full-time and part-time employment. The fourth quarter displays few opportunities for both full-time and part-time employment.



Figure 2.3: Employment in the South African tourism industry (Stats SA, 2017a)

In South Africa, tourism has been acknowledged as one of the biggest key economic sectors and continues to grow considerably. According to Stats SA (2018:5), 96.6% of foreign arrivals into the country were for holiday purposes. This strongly emphasises the significance of South Africa as a holiday destination.

According to Stats SA (2017a), despite the drop in numbers of visitors to South Africa between 2015 and 2016, the tourism industry continued to create employment. The industry provided 32 186 individuals with jobs in 2015, which increased the tourism workforce from 679 560 workers in 2014 to a total of 711 746. Figure 2.3 highlights the contribution of the tourism industry to employment in South Africa (Stats SA, 2017a). The figure portrays the tourism sector's immense contribution to employment in South Africa. One in 22 people are employed in positions related to the tourism industry, portraying the potential of the tourism sector to job creation.

There are a number of components contributing to the growth of the tourism industry. According to Technofunc (n.d.), the components of the tourism industry can be divided into six key areas:

## Travel agent

A travel agent is the point of information for people interested in taking a trip. Travel agents give advice on various packages to suit specific preferences and assist in budget and planning of trips.

## Tour operator

A tour operator usually offers packages which comprise air or sea travel, accommodation and services such as ground travel and excursions of various types. These tour operators can be wholesale and operate only through retail travel agencies, or can also operate directly with consumers.

## Lodging and catering

This component provides visitors with accommodation of various types and ratings. These can be reached through operators or agents or directly by tourists. This component also includes catering needs of visitors which can be within the accommodation establishments or at various eating and dining establishments of various types and affordability ranges.

## Various kinds of transport

Transport providers are those who provide major forms of transportation such as airlines, cruises, car rentals and rail. A visitor's choice would be dependent on distance, budget, convenience, purpose of trip and various other factors associated with the trip.

## Information and guiding

Information and guiding services include services such as insurance, banking information, tourist guiding, communication and other information which is important for visitors to a destination, especially to a foreign territory.

#### Tourist attractions

These are usually the drawcards to the intended destination. These could be a huge theme park, natural attractions or formations, heritage areas or man-made attractions. Destinations need to have one or more attractions to widen their appeal and attract more potential visitors. Figure 2.4 illustrates a summary of the components of the tourism industry.

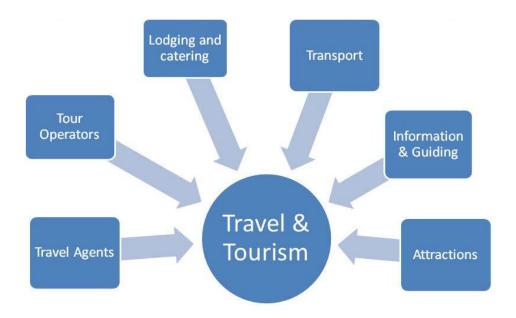


Figure 2.4: Components of the tourism industry (Technofunc, n.d.)

Together, all these components shown in Figure 2.4 constitute elements of tourism and offer employment to individuals.

The next section examines the origin of CMT, which is tourism taking place in coastal and marine environments for benefits attached to local and economic gain.

## 2.3 The origin of CMT

Orams (1999:7) states that even though oceans and seas were still considered unexplored territories in relation to land, they showed a growing number of activities as well as human usages. Hall (2016:355) notes that owing to technological advances, it has certainly become easier to reach the marine space as well as construct resistant infrastructures and facilities in the oceans in order to develop several activities for economic gain.

According to Hall (2001:602), CMT are close relatives due to the sea element, however are distinct in their own right. Lekakou and Tzannatos (2001:480) concur that indeed, marine tourism is a form of tourism totally connected to and dependent on the sea and marine environment. Hall (2001:602) also acknowledges the close relationship between coastal and marine tourism and highlights the dependency on the sea element on both. CMT is among the largest and oldest sectors of the tourism industry, dating back to the late nineteenth century when wealthy Americans began visiting coastal areas, particularly in Florida (Honey & Krantz, 2007).

Where coastal tourism is concerned, Hall (2001:604) states this is a tourism phenomenon that occurs in coastal waters and covers beach-based tourism and recreational activities such as sunbathing and swimming. Marine tourism on the other hand constitutes of a range of activities that occur in the deep oceans, the most leading form being cruising and sailing (Diakomihalis, 2007:421; Honey & Krantz, 2007). Orams (1999) argues that marine tourism requires one to travel away from one's place of residence as well as to be actively involved in the sea. According to the European Commission (2014), other marine tourism activities include scuba diving, wildlife mammal viewing, underwater fishing, tours to marine parks, and windsurfing. As noted by Aguiló-Perez and Juaneda (2000) and Vainikka (2013), a tourist will generally choose a coastal holiday destination. Water-based recreational activities have become a major component of the tourism industry and continue to gain international visitor preference (Lange & Jiddawi, 2009). Therefore, tourism activities in coastal and marine environments constitute a large part of tourism.

When analysing the definition of marine tourism by Orams (1999:9), it can be deduced that marine tourism constitutes a unique sector of tourism that involves travel away from one's home; however the emphasis lies on the focus of the marine environment that includes activities within

the coastal and marine spaces. Connell et al. (2009:870) support this notion by defining marine tourism as a set of activities taking place within the marine environment.

Orams and Lück (2014:482) state that nature-based tourism contributes to the coastal economy of many tropical marine systems around the world. This notion is supported by Hall (2001:606) and Biggs et al. (2015:66), who reflect in their work that marine-orientated nature-based tourism plays an important socio-economic role and provides an incentive for conservation in many coastal regions. Coastal and marine environments have gained popularity as tourism settings among tourists (Honey & Krantz, 2007). The United Nations Environment Programme (UNEP) (2009:10) notes that "coastal tourism is based on a unique resource combination at the interface of land and sea offering amenities such as water, beaches, scenic beauty, rich terrestrial and marine biodiversity, diversified cultural and historic heritage, healthy food and good infrastructure". According to Seymour (2012:27), marine tourism comprises a number of different aspects such as marine/coastal environments, marine protected areas (MPAs) and marine activities which together contribute to its existence.

The marine tourism industry has been growing steadily (Orams, 1999; Hall, 2001; Biggs et al., 2015). Two-thirds of the planet surface area is made up of the marine environment (Cheung et al., 2012), therefore the marine environment constitutes a major venue for tourism and recreational activities (Kenchington, 1993). Previous years have shown a growth in nature-based tourism and interest towards marine areas as well as species (Lange & Jiddawi, 2009; Vianna et al., 2012; Guerra & Dawson, 2016). However, Biggs et al. (2015) warn that nature-based tourism in marine systems is under threat from global change. According to Koç (2016:2), marine tourism is also inclusive of coastal tourism development such as accommodation, transport and restaurants as well as infrastructure which supports this development.

Recreational activities which are dependent on water have become a key element in the tourism industry (Burgin & Hardiman, 2011:686). For example, whale watching is a fast-growing industry across the globe and has gained considerable support from the international community as a non-consumptive activity of marine species (Hoyt, 2001; Higham et al., 2016). Greenpeace (2001) notes that whale watching is a billion-dollar industry which is available in more than 87 countries around the world, attracting over a million participants annually. Other examples of such tourism activities include diving and snorkelling with manta rays and seals, and diving with sharks and turtles (Anderson & Waheed, 2001; Cinner, 2014:67). To date, there are many

definitions of CMT. Nulty et al. (2007:1) define marine tourism as "the sector of the tourism industry that is based on tourists and visitors taking part in active and passive leisure and holidays pursuits or journeys on (or in) coastal waters, their shorelines and their immediate hinterlands". Additionally, according to Mediterranean Maritime Integrated Projects (2014:1), "coastal tourism refers to land-based tourism activities including swimming, surfing, sunbathing and other coastal recreation activities taking place on the coast for which the proximity to the sea is a condition including also their respective services". However, based on the research that the South African Department of Tourism has presented undertaking on CMT (South Africa. Department of Tourism, 2017b:25), and taking into consideration that there is no standardised definition across this sector, it is noted that in order for South Africa to measure the economic impact of its CMT, South Africa has endorsed the following definition used by the International Coastal and Marine Tourism Society (ICMTS), as derived from Orams (1999), and is proposed for the study:

CMT includes those recreational activities which involve travel away from one's place of residence which have as their host or focus the marine environment and/or the coastal zone.

The entire coastal and marine system is diverse and complex. Some of the key components are indicated by ICMTS (n.d.):

- Coastal ecosystems: estuaries, coastal dunes, rocky coasts, sandy beaches, coastal cliffs, intertidal (littoral) areas.
- Marine ecosystems: coral reefs, benthic zones, kelp forests, rocky reefs, continental shelves, seamounts, hydro-thermal vents, open oceans, polar oceans.
- Oceanic zones: Epipelagic, mesopelagic, bathypelagic, abyssopelagic, hadalpelagic.
- Coastal zones: inshore, littoral, foreshore, backshore.

Coastal and marine recreation activities are presented in Table 2.1

Table 2.1: Coastal and marine activities

Coastal Recreational Activities	Marine Recreational Activities
sand-dune surfing	scuba diving
<ul> <li>beach volleyball</li> </ul>	<ul> <li>snorkelling</li> </ul>
<ul> <li>tidal-pool exploration</li> </ul>	sailing
<ul> <li>kite flying</li> </ul>	<ul> <li>yachting</li> </ul>
<ul> <li>land yachting</li> </ul>	<ul> <li>water skiing</li> </ul>
<ul><li>fishing</li></ul>	<ul> <li>wakeboarding</li> </ul>
<ul><li>walking</li></ul>	<ul> <li>boat-based fishing</li> </ul>
<ul> <li>skim boarding</li> </ul>	wildlife watching (including shark
<ul> <li>horse riding</li> </ul>	cage diving)
<ul> <li>sand-castle building</li> </ul>	scenic boat cruising
<ul> <li>sand sculpting</li> </ul>	<ul> <li>sea kayaking</li> </ul>
<ul> <li>radio-controlled boating</li> </ul>	<ul> <li>surfing</li> </ul>
<ul> <li>wildlife watching</li> </ul>	surf-ski paddling
<ul> <li>shellfish gathering</li> </ul>	kite surfing
<ul> <li>beachcombing</li> </ul>	<ul> <li>board sailing (windsurfing)</li> </ul>
<ul><li>sunbathing (baking)</li></ul>	<ul> <li>dragon-boat paddling</li> </ul>
• picnic	stand-up-paddle boarding
<ul><li>barbecues</li></ul>	• swimming
	<ul> <li>coastal drives (including sea</li> </ul>
	watching from viewpoints)
	<ul> <li>scenic boat trips/visits (including</li> </ul>
	to islands)
	ferry trips
	<ul> <li>cruise ship visits (as passengers</li> </ul>
	and local visitors)
	<ul> <li>going to visitor centres (aquaria,</li> </ul>
	museums, heritage sites, etc.)
	maritime-related events and
	festivals
	<ul> <li>health therapy (e.g.</li> </ul>
	thalassotherapy)
	reef walking
	maritime museums

Source: Table compiled from ICMTS (n.d.)

The next section examines CMT from a global and South African perspective.

## 2.3.1 Global overview of CMT

CMT is among the largest and oldest sectors of the tourism industry (Honey & Krantz, 2007). Orams and Lück (2014:483) state that nature-based tourism contributes to the coastal economy of many tropical marine systems around the world. This position is supported by Hall (2001:605) and Biggs et al. (2015:66) who indicate that marine-orientated nature-based tourism plays an important socio-economic role, and provides an incentive for conservation in many coastal regions. Biggs et al. (2015:67) note that it is mostly around coral reefs and unique marine species such as sharks and whales where nature-based tourism is centred. Such regions therefore present such opportunities. Boon et al. (2002:96) argue that nature-based tourism which is not associated with coral reefs or which is not home to unique species such as sharks does not receive as much attention; however it has the potential to probe much needed data for developmental purposes.

Coastal and marine environments have gained popularity as tourism settings among tourists (Honey & Krantz, 2007). The United Nations Environment Programme (UNEP) (2009:10) notes that "coastal tourism is based on a unique resource combination at the interface of land and sea offering amenities such as water, beaches, scenic beauty, rich terrestrial and marine biodiversity, diversified cultural and historic heritage, healthy food and good infrastructure". According to Seymour (2012:27), marine tourism comprises a number of different aspects such as marine/coastal environments, MPAs and marine activities which together contribute to its existence.

## 2.3.2 South African perspective

An integral part of the South African environment is undoubtedly its oceans and coasts (South Africa. Department of Environmental Affairs, 2017a). The marine and coastal environments are regarded as the country's assets and present as well as sustain a wide range of social, ecological and economic services which form the foundation of income for millions of individuals in the country (South Africa. Department of Environmental Affairs, 2017a). South Africa boasts a coastline stretching over 3000 kilometres and offering different activities for tourism (Western

Cape Government, 2018). Even with this lengthy coastline, research and investigations have identified an opportunity for further exploitation from the coastal and marine environment. Operation Phakisa is at the centre of unlocking coastal economic opportunities.

## 2.3.2.1 An overview of Operation Phakisa

In 2013, former President Jacob Zuma undertook a state visit to Malaysia where he was introduced to a "Big Fast Results Methodology" through which the Malaysian Government experienced significant benefits of economic transformation (South Africa. Department of Environmental Affairs, n.d.). With the support of the Malaysian Government, the Big Fast Results Methodology was adapted to the South African context (South Africa. Department of Environmental Affairs, n.d.). Through the Department of Planning, Monitoring and Evaluation, the South African Government then launched Operation Phakisa (Operation Phakisa, 2014). Phakisa, which means "fast" or "hurry up", is a programme which is meant to produce fast results and bring together key stakeholders in a "laboratory" for practical and intensive planning and set targets which are made available for public scrutiny (Operation Phakisa, 2014). Operation Phakisa was conceptualised from analysing and adopting aspects of the Malaysian marine cadastre conceptual model (Institute for Global Dialogue, 2016). There are various definitions of marine cadastre; however, in the Malaysian model, marine cadastre is defined as a marine management system that considers who has special rights, restrictions and responsibilities for marine space activities (Abdullah et al., 2013:26).

The South African DEA led the first implementation of Operation Phakisa, which focuses on unlocking the economic potential of South Africa's oceans (Operation Phakisa, 2014) and stimulating the country's blue economy (Van Wyk, 2015:157). The Western Cape, Eastern Cape and KwaZulu–Natal are the coastal provinces identified to be at the driving seat of this initiative. Overall, South Africa's oceans are capable of generating an estimated R129 177 billion contribution to the Gross Domestic Product (GDP) by the year 2033 (Operation Phakisa, 2014). The Institute for Global Dialogue (2016) also notes that there are 250 000 jobs directly linked to various maritime regimes locally, but with Operation Phakisa this number could be up-scaled to a million jobs. Initially, Operation Phakisa had four focus areas (Operation Phakisa, 2014):

# Marine protection services and ocean governance

This area is aimed at the implementation of a tool to involve the stakeholders of the oceans in order to draft the execution and monitoring of an integrated approach to planning in the oceans arena as well as develop an instrument to ensure that governance and enforcement are carried out in a joint and effective manner within a period of a year. This focus area is led by the South African DEA.

## Aquaculture

The Department of Agriculture, Forestry and Fisheries leads the aquaculture focus area which is aimed at establishing how South Africa's aquaculture can lead to the development of new and existing farms in order to create about 5 500 direct jobs as well as accomplish a collective value of R1.5 billion (South Africa. Department of Agriculture, Forestry and Fisheries, 2016).

## Maritime transport and manufacturing

This area focuses on how the maritime transport and manufacturing sector can grow over the next five years in order to be able to increase its contribution to the GDP as well provide employment. The initiatives are set to expand the capacity of South African ports for repair work, oil rigs and oil ships. These initiatives include an increase in local manufacturing by using local components, and increasing the repair capacity in Richards Bay.

## Offshore oil and gas exploration

The Department of Mineral Resources leads the offshore oil and gas exploration focus area which aims to unravel the capabilities of South Africa's offshore oil and gas for economic gain, through the exploration of 40 new wells in a period of ten years as well as production through the development of projects.

During an oceans economy review workshop in 2015, two more focus areas were identified and added, namely, small harbours, and CMT, the focus of this study, as summarised next.

#### Small harbours

Small harbours carry the potential for harbour infrastructure as well as development of precincts of small towns. This focus area has the ability to create about 12 000 jobs and make a significant contribution to the GDP. This is led by the Department of Public Works (Operation Phakisa, 2015a).

#### CMT

Led by the Department of Tourism, initiatives within the coastal tourism space, projects as well as interventions will be put in place to analyse the contribution and potential contribution of CMT to non-urban communities (Operation Phakisa, 2014). This makes CMT a very important focus area of oceans economy.

According to Eugui and Onguglo (2014:2), the concept of the oceans economy, also referred to as the blue economy, was developed to promote environmental sustainability and social inclusion, and to protect the ecosystem of the oceans, all of which ultimately contribute to economic growth. The oceans economy is a relatively new concept which stems from the green economy and was endorsed at the United Nations Conference on Sustainable Development held in Rio de Janeiro, Brazil, in 2012. The blue and green economies both share similar desires, which are "the improvement of human wellbeing and social equity, while reducing the environmental risks and ecological scarcities" (World Bank, 2017). The oceans economy seeks to reverse environmental degradation for economic gain, therefore the use of marine resources should be within limits and efficiency and optimisation strictly managed. The World Bank further notes that an oceans economy approach emphasises support for sustainable livelihoods and food security in coastal communities, and there are about 350 million jobs attributable to the oceans through aquaculture, coastal tourism and research, as well as fishing. In South Africa, Operation Phakisa, also referred to as the Oceans Economy, was launched in 2014 and at the launch, President Jacob Zuma noted that the Oceans Economy was developed in accordance with the National Development Plan, which is to promote economic growth as well as boost employment opportunities for ordinary civilians (Operation Phakisa, 2014).

The Operation Phakisa Oceans Economy Lab, focusing on CMT, was initiated in 2016. Operation Phakisa's vision of CMT is stipulated as follows: "By 2030 South Africa is the premier

experience-based coastal and marine tourism destination in Africa and is renowned as a top coastal and marine tourism destination globally with a unique range of experiences for all visitors" (Maritime Cluster, 2015:4). The Lab was held with the main objective of unlocking the potential of South Africa's CMT as well as to gather and prioritise issues which would lead to action plans and develop solutions quickly (South Africa. Department of Tourism, 2017a:1). The Lab took place over a period of five weeks, from 11 April to 23 May 2016, and the outcomes of the Lab included the following (South Africa. Department of Tourism, 2017a:1-2):

- The vision is "to grow a world class and sustainable coastal and marine tourism destination that leverages South Africa's competitive advantages in nature, culture and heritage".
- It is estimated that the coastal and marine tourism sector could contribute a total of R21.4 billion to the GDP by 2030 and approximately double the number of employed persons in the sector to up to 116 000 by 2030. The Lab also seeks to see South Africa being ranked amongt the top ten destinations globally and receive an annual growth of 9%.

The table below illustrates the six focus areas prioritised during the CMT Lab.

Table 2.2: Outcomes of the CMT Lab held in 2016

Working Group	Initiatives				
Marketing, events and routes	<ul> <li>Enhance the promotion of CMT in South Africa through coordinated marketing efforts</li> <li>Develop a calendar and framework of CMT events</li> <li>Support the expansion of Isingqisethu Wild Coast Cultural Festival and the Volvo Ocean Race Festival</li> <li>Development of the Indi-Atlantic Route</li> </ul>				
Regulations and permitting	<ul> <li>Establish the Intra-Government Permitting Forum to coordinate permit application processes and decision making for CMT-related activities</li> <li>Assist in unblocking legislative constraints impeding the development of Nonoti Beach Resort (KZN) and Mkambati Nature Reserve (EC)</li> <li>Develop guidelines on responsible tourism for CMT activities</li> </ul>				

Research and spatial	A research study to develop a framework to measure the economic				
planning	impact of CMT in South Africa				
	A research study on the governance and coordination of CMT				
	Development of an online CMT data system				
Beach precinct	Coordinate the coastal Working for Public employment programmes				
development and	and expand as required, including expanding the Tourism Blue Flag				
tourism safety	Programme				
	Support infrastructure development for Port St Johns Beach				
	Waterfront				
	Development of the East London Esplanade, including relocation of				
	the aquarium				
	Upgrading of the Alexander Bay airport for tourism purposes				
	Enhancement of tourism products on inland waterways				
	Investment promotion for identified tourism infrastructure projects				
Maritime tourism	Development of port infrastructure to support cruise tourism in				
	Durban, Richard's Bay, Port Elizabeth, East London and Cape Town				
	(transferred from MTM Lab)				
Skills development	Facilitate capacity-building programmes for identified CMT-related				
3 333 533 633 633	skills				
	Enhance existing CMT awareness programmes				
	Improve service excellence levels in coastal towns				

Source: South Africa. Department of Tourism, 2017a:2

With regards to Table 2.2, the Department of Tourism (South Africa. Department of Tourism, 2017a:2) also reported that during 2016, three initiatives commenced:

- Blue Flag Beaches Programme
- Boat-Based Whale Watching and Shark Cage Diving
- Off-Road Vehicle 4X4 Beach Driving

These initiatives will continue to progress with the First Phase Implementation Plan (over a period of one to five years) (South Africa. Department of Tourism, 2017a:2).

The CMT industry has a number of challenges, as discussed in the next section.

## 2.4 Challenges of Coastal and Marine Tourism

Orams (1999:7) notes that the marine environment has been viewed as a relatively unexplored territory compared with land; however human involvement has been identified as a factor contributing to unlocking the potential of marine-based activities. Hall (2016:360) concurs that with technological advances it has certainly become easier for marine spaces to be accessible and infrastructure erected, with economic gain as the primary motive. The United Nations Conference on Trade and Development (2014) makes a very strong statement regarding oceans, that "the oceans are widely accepted as the incubator of all life forms, they are a fundamental yet delicate part of the earth's biosphere and essential to sustaining life on the planet". This statement therefore emphasises the importance of the oceans to life on earth. However, challenges facing tourism, particularly CMT, remain. These are presented in the next section.

## 2.4.1 Legislation

Legislation is defined as written law enacted by a body or individual given the authority to do so by the Constitution (De Jager, 2000:3). The Constitution therefore delineates the roles and responsibilities for different spheres of government, ensuring that all activities in these spheres are regulated. A constitution is regarded as a body of principles fundamental to how any state should be governed (South Africa. Department of Justice, 1996:1-2). The Constitution is the most supreme law of a land and no other law may contest it. The Constitution post 1994 in democratic South Africa focuses on rights, equality, human dignity, life, freedom of religion and expression, access to natural resources, and the environment for all citizens as opposed to previous legislation which favoured only the white minority (South Africa. Department of Justice, 1996:4). This therefore bridges the gap between pre- and post-apartheid policies in South Africa. Under environment, the Constitution ensures that everyone has the right to an environment that is not harmful to their wellbeing and to have the environment protected for present and future generations (South Africa. Department of Justice, 1996:10). This should be achieved by legislative measures that "prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources, while promoting justifiable economic and social development" (South Africa. Department of Justice, 1996:10).

It therefore is important for the tourism industry to follow legislation as promulgated in the Constitution to ensure that the South African environment is used sustainably for the tourism industry to continue contributing to the country's GDP, even for future generations.

Post 1994, the policies in South Africa have been strongly centred on issues relating to equity as a platform for addressing the apartheid policies of the past (Strydom & King, 2009:38). They note that "these goals of economic efficiency, social equity and environmental sustainability have been embodied in the restructuring of all South Africa's policies, ranging from agricultural to biodiversity policies, and have become the goals of natural resource management around the world". Therefore, the primary goal of equity is to ensure that economic benefits obtained through natural resources are distributed with fairness. However, the goal of sustainability becomes increasingly important to monitor such benefits. Strydom and King (2009:38) note that the goal of sustainability emphasises limits to resources in conjunction with population growth and economic development; resources should be used in a sustainable way which will not compromise benefits for future generations. This therefore leads to ecological goals, which should meet national and international biodiversity conservation standards. All these are managed through legislative processes.

As mentioned previously by Spalding et al. (2014:53), the oceans cover more than 70% of the Earth's surface area and play a crucial role in sustaining life on the planet, yet less than 2.3% of the oceans are protected through legislation. Marine Protected Areas (MPAs) are defined as "any area of the marine environment that has been granted special status to encourage lasting protection of the natural or cultural resources within that specific region" (Dixon & Sherman, 1990:8). The function of MPAs is that of conserving biodiversity through providing protection for marine fauna and flora for the purposes of research, education, monitoring and tourism (South Africa. Department of Environmental Affairs, 2016:10). The World Conservation Union Red List of Threatened Species has been applied in South Africa since the 1970s; however there is a lack of baseline information on the species and their population as it is difficult to obtain such information under water (South Africa. Department of Environmental Affairs, 2016:4).

## 2.4.1.1 Policies and regulations

From legislation, policies and regulations are then devised. Goal 14 of the UNWTO is to

by 2030 increase the economic benefits to Small Island Developing States (SIDS) and Least Developed Countries (LDCs) from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism (United Nations World Tourism Organization, 2016:23).

This sustainable management of marine resources is ensured by the development and implementation of policies and regulations. Moreover, the South African government makes use of policies in order to achieve environmentally responsible tourism development (Pedersen, 2016:17). It is thus important for CMT to abide by governmental policies and regulations to prevent major exploitation and degradation of marine resources.

The International Union for Conservation of Nature (2018) is an international body comprising various governmental and non-governmental organisations, and focusing on the welfare of nature (International Union for Conservation of Nature, 2018). The organisation has become the world's largest and most diverse environmental network with a main focus on protecting the environment and improving knowledge (International Union for Conservation of Nature, 2018). Parsons (2013:271) endorses the UICN as an organisation that produces the Red List, an inventory of the global conservation status of threatened fauna and flora species. Many countries use the Red List to prioritise their conservation practices (Parsons, 2013:271). South Africa also uses the Red List as a basis for policies and acts with regard to its species (South Africa. Department of Environmental Affairs, 2017b:4). This is relevant to the current study as shark cage diving in South Africa involves an endangered marine species.

The most relevant legislation to marine and coastal resources is the Marine Living Resources Act, No. 18 of 1998 (MLRA) which for the first time recognised that many coastal communities in South Africa draw their livelihoods directly from marine resources (South Africa. Department of Environmental Affairs, 2016:4). MPAs resort under Section 43 of the MLRA which regulates both exploitation and conservation of marine living resources (World Wide Fund for Nature South Africa, 2014:4). This Act has provided more efficiency in management parameters and improved the marine legislation of the country since 1999 (South Africa. Department of Environmental Affairs, 2016:5).

In terms of the MLRA regulations and the Seal and Seabirds Protection Act, No. 46 of 1973, the following marine fauna species are protected in South Africa (South Africa. Department of Agriculture, Forestry and Fisheries 2016:4):

- Whales
- Dolphins
- Turtles
- White sharks
- Seals
- Seabirds

Whales cannot be approached within 300m, except for a licensed boat taking visitors on a whale-watching tour (South Africa. Department of Agriculture, Forestry and Fisheries, 2016:4). This is to avoid disturbance of marine mammals which could lead to aggressive behaviour or changing of breathing patterns (Davenport & Davenport, 2006:284; Queensland Department of Environment and Science, 2017).

According to the South Africa. Department of Agriculture, Forestry and Fisheries (2016:5), the prohibited species list (prohibiting any person from catching, landing or being in possession of) comprises:

- Basking shark
- Brindle bass
- Coelacanth
- Great white shark
- Natal wrasse
- Pipefish and seahorses
- Potato bass
- Red steenbras
- Sawfishes
- Seventy-four
- Whale shark

The National Government is responsible for the management of this Act, with delegations to management at provincial and local level (South Africa. Department of Agriculture, Forestry and Fisheries, 2016:1).

The Marine Living Resources Act, No. 18 of 1998 (MLRA) is the policy regulating great white shark cage diving in South Africa (South Africa. Department of Environmental Affairs, 2017a:1). White shark cage diving began in 1991 in South African waters, operating under unregulated conditions, until a policy was introduced in July 2008 (South Africa. Department of Environmental Affairs, 2017a:4) after recognising the interest in and growth of this activity and opportunities for research as well as economic and environmental benefits. The then Department of Environmental Affairs and Tourism officially designated five locations where white shark cage diving would be permitted to operate for a period of five years in South African waters: False Bay, Gansbaai, Quoin Point, Mossel Bay, and Port Elizabeth (South Africa. Department of Environmental Affairs, 2017b:4).

The great white shark is listed as "vulnerable to extinction in the wild" by the International Union for Conservation of Nature (IUCN) as well by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (South Africa. Department of Environmental Affairs, 2017b:5). It is these organisations that prompted the need to regulate white shark cage diving practices and to manage this industry. Regulating white shark cage diving involves a code of conduct which operators have to abide by to ensure the operations do not have detrimental impacts on the sharks (South Africa. Department of Environmental Affairs, 2017a:5).

### 2.4.1.2 Permits and monitoring

Permits are issued for designated areas as per the white shark cage diving regulations. The number of permits and designated areas are reviewed and adjusted from time to time following evidence-based scientific advice on species and their ability to withstand further developments (South Africa. Department of Environmental Affairs, 2017b:5). Permits list all the conditions which operators should adhere to while in operation at a designated area and under strict monitoring (Great White Shark Protection Foundation, 2005). In a 2008 policy document on white shark cage diving, the South African Department of Environmental Affairs and Tourism stated the following as policy objectives:

- The transformation of the white shark cage diving industry
- The promotion of the white shark cage diving industry through the allocation of more permits
- Monitoring the impact of shark cage diving and the ecosystem through improving regulations and compliance frameworks for the industry.

According to Reprobate (2013), in theory it is a good management tool to ensure compliance with regulations; however in practice it is difficult to keep track if these have been implemented. The Department of Environmental Affairs and Tourism issued 14 permits to operators in 2010: eight in Gansbaai, three in False Bay, two in Quoin Point and one in Mossel Bay (Reprobate, 2013).

Some challenges have been experienced by operators with regard to shark cage diving, Meyer (2010) reported that in the year 2010, several operators were unsuccessful in their quest to renew their permits. The operators expressed their frustration with this, noting that it would result in job losses, financial ruin, and instability in the industry (Meyer, 2010). They further accused the government of prioritising race and gender, and not the safety and credibility of operators (Meyer, 2010). In their defence, a departmental spokesperson highlighted that "applications were scored across a variety of categories, including transformation, their operational plan and readiness to start operations" (Meyer, 2010).

Operation Phakisa (2014), under its sectors, also claims to create an MPA representative network to safeguard biodiversity and the ocean ecosystem as well as facilitate sustainable development. The South African Maritime Safety Authority is determined to safeguard South Africa's maritime environment, while strongly promoting the maritime sector for the benefit of all stakeholders (South African Maritime Safety Authority, 2013).

# 2.4.1.3 Nature-based activity

Over the past years, it has been widely accepted that the Earth's climate is changing rapidly and the effects are difficult to ignore (South Africa. Department of Environmental Affairs, 2016:3). The Intergovernmental Panel on Climate Change (IPCC) noted an increase in the average surface temperatures and the rising of sea levels (South Africa. Department of Environmental Affairs, 2016:6). They further note a change in the annual average of rainfall and more frequent

extreme weather events. The monitoring of surface temperature and rainfall in South Africa suggests that global warming indeed is experienced and its effects are felt.

Another challenge facing nature-based activities in tourism is that nature is unpredictable and there are no guarantees. The shark cage diving industry in Gansbaai has experienced some unpleasant events which have affected sales and operations. In January 2016, the shark cage diving industry in Gansbaai suffered a huge financial loss as the great whites sharks disappeared from the bay for 21 days. The operators in the area noted that they had lost between R1.5 million and R2 million during this period and that this was the first time they had experienced anything like this (Bamford, 2016). This phenomenon was previously unknown (Bamford, 2016). Other activities such as accommodation and restaurants were also affected and employees were asked not to come to work as there were no shark viewings, therefore there were no guests to serve (Bamford, 2016). This shows how heavily dependent Gansbaai is on the shark cage diving industry.

In 2017, Gansbaai also experienced low numbers of shark sightings (Keeton, 2017). This was attributed to killer whales in the area that killed four sharks in two months (Keeton, 2017). According to *The Citizen* (2017) killer whales are the only known predators of great white sharks. As killer whales are becoming more prevalent in the waters of Gansbaai, this poses a threat to the shark diving industry in the area known as the shark cage diving capital of the world.

An understanding of these challenges will contribute to better management of resources, at the same time yielding better economic returns on CMT. In order to have a better understanding of persons participating in CMT, the next section discusses the profile of CMT visitors, including their motivation for travel and group dynamics.

### 2.5 Profile of CMT visitors

According to Moscardo and Saltzer (2004:167), understanding the nature of visitors is an important aspect of wildlife tourism; however it is relatively under researched. They further add that as much as growth in this sector has been documented and impacts researched, the actual demand for non-consumptive wildlife tourism is relatively unknown, as are characteristics of wildlife visitors on their trips.

Moscardo and Saltzer (2004:168) advance at least three main reasons for studying wildlife tourism markets:

- To provide guidance for infrastructure and services.
- To determine the nature of wildlife tourism visitors and the factors which will lead to satisfaction in order to provide quality experiences.
- To understand visitor behaviour well and ways in which it can be influenced in order to provide positive outcomes such as greater awareness and support.

In protected areas, marketing for tourism is often regarded as negative, with the primary intent of fulfilling commercial interests only. However, Morrison (1996:500) notes that marketing is about determining who the customers are; their needs, motivations for travel and their expectations; their current occupational status; and how they can be influenced to act in a manner matching the goals set by managers without compromising satisfaction.

It is important for sustainable wildlife tourism to have a clear understanding of visitors in order to design programmes which can influence visitor behaviour. This will improve the quality of the experience, which will result in financial gain for operators (Moscardo & Saltzer, 2004:167). Lotter et al. (2014) argue that understanding visitors and their motivations is not an easy task. No matter how convenient it may be to categorise visitors, not every individual will fit perfectly into specified behavioural models or classifications. Moreover, it remains unrealistic to assume that the reasons for travel at a specific time of purchase will be consistent throughout the travel experience (Lotter et al., 2014). Smith and Puckzó (2013) note that with tourism activities, it is not necessarily what the destination can offer tourists, but what any particular destination can supply to each type of visitor. Furthermore, adventure activities and experiences are constantly changing, which affects the categories of profiles already identified. The emergence of new tourist profiles continues to be a changing and ongoing process which stems from dynamics and changes in society (Custódio Santos et al., 2016:656).

Gnoth and Matteucci (2014:8) developed a Tourism Experience Model (TEM) with a pure psychological reasoning application. Experience does not only rely on how the mind perceives the activity it engages in, but also rests on what the destination offers to visitors with regard to possible experience hints or clues. The model suggests that the tourist is made aware of their holiday in two modalities:

The mind either applies the perceptual norms, standards and expectations of a person whose perception seeks the alignment with roles, or his/her mind is humanistically oriented and seeks spontaneous convergence of emotions and situations that reflects the individual's existence (Gnoth & Matteucci, 2014:6).

The TEM is based on two axes, the activity axis as well as the consciousness axis. The TEM has four overlapping areas: egoistic pleasure seeker, re-discoverer, knowledge seeker, and holist (Gnoth & Matteucci, 2014:9). Figure 2.5 illustrates these overlapping areas of the TEM.

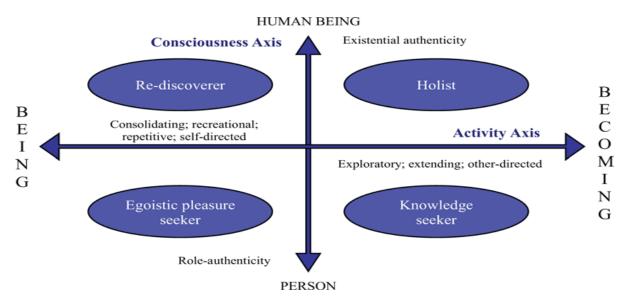


Figure 2.5: The TEM and its components (Gnoth & Matteucci, 2014:9)

The components of the TEM are explained as follows (Gnoth & Matteucci, 2014:10-14)

Egoistic pleasure seeker

Here the tourist experiences familiar surroundings and feelings and generally is able to predict what the destination may produce.

Re-discoverer

The tourist here is at a journey of self-rediscovery and seeks to find ways to restore known skills and capabilities which may have faded along the way.

## Knowledge seeker

Here the tourist seeks to discover new and unique experiences and seeks to satisfy curiosity.

#### Holist

This is where exploratory and seeking behaviour meet and the experiences become holistic and creative. These moments are experienced together rather than separately.

In view of the above-mentioned components, the question thus is how the destination is able to serve the tourists, as they have different mind sets. This has implications for service providers.

### 2.5.1 Implications for service providers in tourism

As mentioned previously, it is important for service providers to have a good understanding of their markets and to know how to address them. Custódio Santos et al. (2016:660) note that implications for service providers are structured by what are known to be the three phases of the consumption process: pre-travel, during travel and post-travel. Custódio Santos et al. (2016:663) focus on two segments of visitor profiles which service providers should take cognisance of.

### 2.5.1.1 Implications for the senior segment

When communicating with this segment, Custódio Santos et al. (2016:661) note that terms such as 'senior' or 'old-timer' as well as other terms associated with old age should be avoided. Although this might appear as obvious or common sense, some operators and service providers still use terms pertaining to age such as '55+' when branding their offerings (Custódio Santos et al., 2016:662). They further caution in respect of the design and branding of products for this market, and note that "communication must therefore focus on the most appealing product attributes and leave it up to each individual to interpret the information and draw his or her own conclusions" (Custódio Santos et al., 2016:662).

Researchers have established that this group prefers traditional channels for booking and reservation of tourism products; however they acknowledge that a portion of this segment is

conversant with technology and able to obtain information from the Internet and design their own trips (Custódio Santos et al., 2016:662). It is therefore important for service providers to maintain a good online presence (as well as provide printed matter) as a means of effective communication with this segment. According to some studies (Kohlbacher & Herstatt, 2011; Caber & Albayrak, 2014; Albayrak et al., 2016), friendliness and kindness of staff are two of the attributes highly valued by this segment. It is therefore important for operators to train their staff to act accordingly. Moreover, although persons in this segment acknowledge some constraints, they perceive themselves as being younger (Custódio Santos et al., 2016:662). In order to be aware of these constraints, staff should be equipped with the necessary skills and training (Custódio Santos et al., 2016:662). Figure 2.6 illustrates the trends for and profiles of the senior segment.

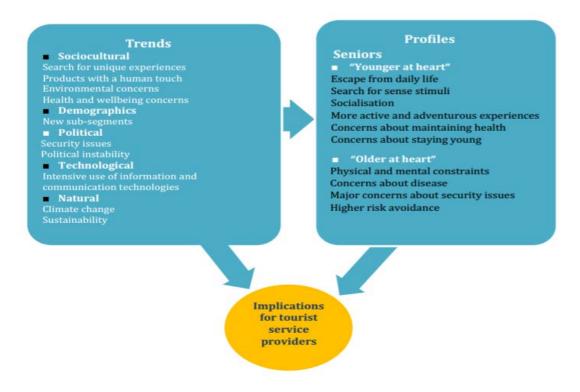


Figure 2.6: Trends for and profiles of seniors (Custódio Santos et al., 2016:661)

### 2.5.1.2. Implications for the millennial segment

Millennials, also referred to as 'Generation Y' or 'Generation Next', comprise individuals born between 1979 and 1994 (Custódio Santos et al., 2016:659). However, some authors note that this segment comprises people born between 1980 and 2000 (Alexakis, 2011; Kotler & Keller,

2012). Globally, this segment is known to have the highest level of education compared with previous generations. According to the United Nations World Tourism Organization (2018:3), this segment is expected to generate an estimated 300 million trips by 2020. This segment was born in the digital age, with access to relevant information and platforms. Another important feature of this segment is their need to have quick access to information, thus making them impatient and highly intolerant of delayed responses (Kotler & Keller, 2012; Leask et al., 2014). At the same time, millennials want to stay connected to their peers through various platforms while anywhere in the world and feel validated by the number of 'likes' in their posts on social media (Custódio Santos et al., 2016:660). This generation also uses information from others and shared experiences for decision-making purposes. Millennials are also the first group to have experienced travel from a young age (Custódio Santos et al., 2016:660). This therefore has an impact on how they plan and design their own trips and value direct reservation platforms. Millennials also perceive themselves as travellers rather than tourists, and seek experiences that accord with whom they are (Custódio Santos et al., 2016:660). Figure 2.7 illustrates the trends and profiles of the millennial segment.

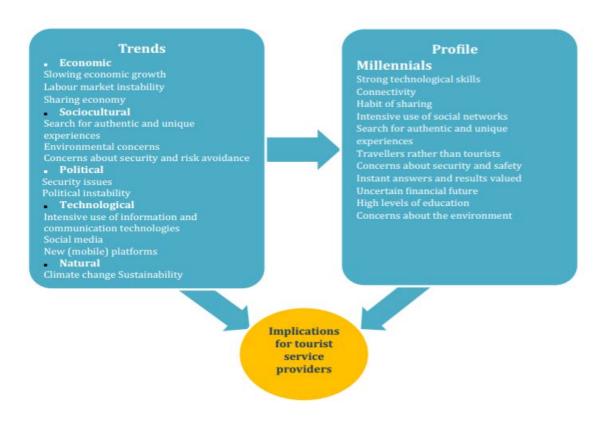


Figure 2.7: Trends and profiles of millennials (Custódio Santos et al., 2016:663)

Millennials display some scepticism towards traditional approaches to communication and rather focus strongly on mass media (Custódio Santos et al., 2016:663). Operators therefore need to rethink their efforts not only with regard to the content, but also to the format of communication. The content should be relevant, with techniques that connect emotionally with the tourist, with more images than text (Custódio Santos et al., 2016:663).

According to Custódio Santos et al. (2016:665), "the constant changes that occur in organisations' external environments require a continual, systematic monitoring of trends influencing consumer behavior". Among the most popular and relevant trends in respect of visitor profiles are those listed below (Custódio Santos at al., 2016:665):

- Concerns regarding environmental and social responsibility
- An increase in focus on health and wellbeing
- Increasing dominance in the use of new technologies and communication platforms

The authors further note that although these segments have not yet been thoroughly profiled, conclusions can be drawn that can lead to better drafting of strategies by service providers. Furthermore, the academic industry needs to produce more studies which will contribute to a better understanding of these segments.

## 2.6 The impacts of CMT

The following section discusses the impacts of CMT

## 2.6.1 Economic impacts

Economic impacts are described as the effects impacting on the level of economic activity in an area (Weisbrod & Weisbrod, 1997:1). Watson et al. (2007:141) add that economic impacts measure the actual expenditure in a given area and how this cycles through the economy of that region. Furthermore, economic impacts are the result of economic interaction between various stakeholders of the economy and are measured for a specified area, region or country to determine the contribution of a certain activity (South African National Parks, 2008:6). CMT therefore involves an activity or activities that enables these interactions that result in economic

spending in certain regions. Measuring this spending determines economic impacts. In Europe, CMT is regarded as the biggest maritime activity; it is responsible for 3.2 million jobs and represents over one-third of the European maritime economy (European Commission, 2014). Furthermore, the European Commission (2014) states that more than four out of nine (44.4%) nights in accommodation establishments are spent in coastal municipalities.

According to Eurostat (2017), reporting coastal and marine tourism statistics is not an easy or standardised task; however Muganda et al. (2017:55) argue that it is not difficult to recognise why these forms of tourism are considered to be the largest components of the tourism industry globally, with substantial roles in national economies and with promising growth and room for further development (Marine Management Organisation, 2013:5). Moreno and Amelung (2009:555) noted that indeed more than two-thirds of the planet comprises the oceans and seas, while the majority of countries globally are coastal.

Based on these facts and trends, it can be deduced that coastal and marine tourism represents a constantly growing sector and has become among the most important economic activities within our oceans.

Several studies have examined the value of South Africa's oceans economy, with the focus on tourism (Ballance et al., 2000; South African Tourism, 2017; Potgieter, 2018; Walker, 2018). Findlay (1997) conducted a study focusing on the attitudes and expenditure of whale watchers in Hermanus, South Africa, and revealed that whale watching contributed an estimated R5.4 million to the Hermanus region (Findlay, 1997:61).

In 2016, the WWF-SA released a report with a view to valuing South Africa's oceans economy which gives an overview of the worth of CMT in the country (World Wide Fund for Nature South Africa, 2016:26). South Africa is known as an adventure destination, attracting a young and active market yearning for new and unique experiences; the marine environment of the country thus presents opportunities for economic gain in this regard. The World Wide Fund for Nature South Africa (2016:26) indicated the direct value of the marine ecotourism sector to the South African economy to be estimated at R400 million and the indirect value at R4 billion. This highlights the enormous contribution of the CMT sector to the country's economy. The South African Maritime Safety Authority (2015:1) also notes that in 2013 the South Africa marine economy contributed R19 billion towards the economy, with projections indicating a likely

increase to R44 billion by 2020. This further supports the significance of tourism to the South African economy. These studies generally reveal the significance of the coastal and marine environment as an enabler of tourism and its important contribution to the country's GDP. Data for these studies was drawn from visitor surveys as well as business and/or resident surveys. The main indicators and variables utilised include the following:

- Visitor arrivals
- Improvements in GDP
- Visitor expenditure patterns (distribution and magnitude of spend)
- Job creation/income generation
- Encouragement of entrepreneurial activities and local small businesses
- Development of other tourism offerings

Despite the above-mentioned studies regarding the economic impact of CMT in South Africa, minimal data is available. Often multipliers are used to calculate indirect costs. Furthermore, South Africa experiences significant leakage in the tourism sector as noted by Saayman et al. (2009:5). This should not be ignored as the local economy does not benefit fully from tourism.

## 2.6.2 Environmental impacts

Changes in human production and consumption result in environmental pressures which are regarded as environmental impacts (Miedzinski, 2013:5). According to Achieng Ogola (2007:1), the need to determine environmental impacts began when rapid industrialisation and urbanisation in Western countries rapidly depleted natural resources. Negative environmental impacts of tourism occur when visitor use exceeds the environment's ability to cope with the interaction and therefore the environment is under stress (United Nations Environmental Programme, 2001). These impacts occur on three levels: natural resources, pollution, and physical impacts. Furthermore, the physical environment and local people play an important role in the quest to develop tourism (Kolawole et al., 2016:3). This emphasises the need for environmentally aware tourism.

Tourism has the ability to increase public awareness and appreciation of the environment and encourage sustainable interaction with natural resources (Ghulam-Rabbany et al., 2013:128).

Tourism development that is environmentally conscious can also contribute towards the economy, raise environmental awareness, and improve environmental management and planning (Rath & Gupta, 2017:51).

The debates surrounding conservation of the environment and recreational activities in natural spaces have been ongoing in tourism literature (McCool, 2009:140; Anderegg et al., 2015:675). According to Papageorgiou (2016:47), tourism continues to grow. It has a multidimensional nature with the ability to overwhelm coastal and marine spaces in a rather fragile ecosystem. Coastal and marine tourism is the most important component of the tourism industry and notably the most dominant (Papageorgiou, 2016:47); however this division of tourism is frequently polemical with regard to its impact on the environment and conflict with other human activities. At the Inter-parliamentary Conference on the Global Environment held in Brazil in 1990, nations were exhorted to join forces and cooperate to protect marine biodiversity and productivity (Taylor & Buckenham, 2003:11). Despite this call, species continue to decline and biodiversity is lost as humans exploit natural resources. The values associated with tourism within the nonconsumptive sector thus have become a priority (Davies, 1990:75; Duffus & Dearden, 1990:220). The United Nations World Tourism Organization (2018:9) has welcomed the adoption of the sustainable development goals and Goal 14 which seeks to "conserve and sustainably use the oceans, seas and marine resources for sustainable development". This further emphasises the importance of utilising our marine resources in a sustainable manner. Taylor and Buckenham (2003:6) caution:

Without substantial refocus on our marine environment over the next decade, there can be no guarantee that ecological qualities will be sustained, that the viability of businesses dependent on such ecosystem health will be maintained, or that customary, recreational and cultural relationships of New Zealanders with their seas, beaches and harbours will be guaranteed into the future.

Papageorgiou (2016:46) suggests that even though the environmental impacts of coastal and marine tourism cannot be totally proved or studied thoroughly, it is important that marine-based tourism resorts under special management and with good planning. In their study, Trave et al. (2017:213) highlight that "environmental impacts range from changes in behaviour, health or ecology of a specific species involved to broader scale ecosystem changes". Currently (2018) we cannot be certain that the concept of wildlife tourism is successful in its quest for a more sustainable approach. Bateman and Fleming (2017:13) note that when animals are the focal point, tourism in natural environments has the potential to be detrimental to wildlife.

The concept of Integrated Coastal Management (ICM) was introduced at the 1992 Earth Summit in Rio de Janeiro (United Nations, 1992). The main objective was to address the numerous challenges that faced coastal zones and as per the document, management of coasts and oceans should be "integrated and anticipatory in ambit". Although various definitions of ICM exist, all definitions inclusively emphasise the procedure as being dynamic and innovative, with interaction between land and ocean being the focus. The summit also emphasised the importance of sustainable development, given the delicate nature of the marine environment. As per the summit, "the marine environment – including the oceans and all seas and adjacent coastal areas – forms an integrated whole that is an essential component of the global life-support system and a positive asset that presents opportunities for sustainable development" (United Nations, 1992). There have been various efforts to mitigate the harmful impacts of tourism to the environment.

On the Ningaloo Coast (Australia), a World Heritage Site, the environmental impacts attributable to tourists are evident. A framework for sustainable management and growth was required to facilitate an assessment of existing and potential nodes following the increase in visitors to the area. The main objective thus was the development of a framework which would assist in mitigating these harmful impacts yet maintain a sustainable environment while ensuring economic benefits (Jones et al., 2009:12) Globally, there have been various attempts at the management of marine spaces as well as marine species. The section below gives some insight into the shift to a more integrated form of management in marine spaces.

## 2.6.2.1 A shift to more integrated management

There has been a shift from ICM to Marine Spatial Planning (MSP). It has gained popularity as a vehicle for managing the increasing competition among various marine activities and the constant negative effect that these activities are said to have on the marine environment (Ehler & Douvere, 2009:49). Ehler and Douvere (2009:18) define MSP as "a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that usually have been specified through a political process". Ehler and Douvere (2009:20) state that some areas of the oceans are more valuable than others, hence the need for proper planning and management. They add that in order to achieve successful marine management it is imperative to appoint managers with a sound understanding of spatial planning and the diversity of the sea.

Ferreira et al. (2014:498) argue that ICM and MSP collectively provide useful tools for the sustainability of the marine environment. Despite relative agreement regarding best practice and the wide use of ICM in both developed and developing nations, coastal resources continue to degrade. Curtin and Prellezo (2010:825) note that as populations continue to grow and marine activities increasingly become more diverse, people are exploiting the marine environment for financial gain. This is a universal concern. "Environmental degradation, habitat loss, climate change, over-population, unsustainable economic conditions and civil unrest all potentially threaten the sustainability and quality of life in coastal regions of Sri Lanka" (Powell et al., 2009:634). These views are an indication that coastal regions are under threat.

## 2.6.2.2 Monitoring marine species

Monitoring is defined as the gathering and analysis of information regarding a programme or project while it is still ongoing (University of Oxford. School of Geography and the Environment, 2014:5). Monitoring is regarded as a crucial component of the planning or management process, as without monitoring, managers or developers are unable to track the progress of a project or deadlines set (United Nations Environmental Programme, n.d:151). Two specific areas for monitoring are noted below.

## Monitoring visitor impacts

Visitors have environmental and social impacts on protected areas and it is important for managers to have a clear understanding of those impacts through proper planning and periodic measurement of indicators.

### Monitoring service quality

The planning process should also include the proper monitoring of service providers in offering experiences to visitors. These experiences should satisfy the needs of visitors; however, within parameters which are not detrimental to the environment. Furthermore, in order to assess the state of a destination and its wellbeing, it is important to analyse existing data on various aspects of the destination, including the relationships between natural resources, the local community and the tourism sector (Park & Jamieson, 2009:40). This emphasises the importance of monitoring tourism in order to achieve the sustainability and longevity of the sector (Rio & Nunes, 2012:65).

Promoting environmentally friendly behaviour has positive results in minimising degradation to the environment from recreational activities (Zeng & Zhong, 2017:502). Liobikiene and Juknys (2016:3414) define environmentally friendly behaviour as "actions taken by tourists to ensure that tourism activities do not worsen environmental quality". Zeng and Zhong (2017:503) contend that environmentally friendly tourists play a fundamental role in sustainable tourism as they contribute to better management of the environment. Therefore, environmentally friendly behaviour can assist in monitoring marine environments.

Lewison et al. (2004:600) suggest that as populations of marine predators continue to decline, it is crucial to establish accurate demographic parameters in order to effectively assess as well as inform management decisions. Worm et al. (2013:200) note that a considerable number of shark species are declining as a result of fishing, depleting populations globally. Despite this knowledge, there is still a lack of data on the distribution and ecology as well as the abundance of species in natural environments. According to Vianna et al. (2011:1), this insight has emerged at a time where the importance of sharks as a non-consumptive activity to local economies through ecotourism has been identified. However, the constant monitoring and assessment of shark numbers present a challenge owing to the variety of habitats and low population of species (McCauley et al., 2012:387; Richards et al., 2015:205). Large-scale and long-term monitoring can also be costly, making this exercise an expensive one. Goffredo et al. (2010:2180) suggest that if the public were to collect data on wild animals, this could minimise costs in monitoring shark populations. They add that such "citizen science" initiatives are a preferable option to conventional science sampling, as they present an opportunity to yield much-needed data at a minimal cost. This approach is particularly useful in the marine environment for the study of megafauna and conspicuous animals, as the data collected is easy to collate (Bell et al., 2016; Jaine et al., 2012). In their study, Vianna et al. (2012:271) were able to demonstrate that data collection done by guides proved to be effective while monitoring shark populations in Palau.

## 2.6.2.3 Socio-cultural impact

Tourists often leave an impact on the socio-cultural lives of their hosts (Kariel & Kariel, 1982:2). Pizam and Milman (2014:30) note that social and cultural impacts of tourism are the ways through which visitors contribute to changes in behaviour, value systems, lifestyles, family relationships, traditions, moral conduct and community organisation of host communities. For

successful tourism development, local communities' perceptions of tourism impacts are crucial and should not be overlooked (Aref et al., 2009:130). These impacts as alluded to by Nayomi and Gnanapala (2015:59) can be positive or negative, or even both. Positive impacts include improvement of standards of living through employment or entrepreneurial opportunities, better infrastructural development, community cohesion and an increase in cultural pride, while negative impacts include an increase in taxes and prices, congestion, pollution, culture shock, communication difficulties, perceptions of inferiority or superiority, and a decline in moral behaviour, among others (Kim et al., 2013:528). Local communities, particularly in less developed countries, often rely on tourism as a means of sustenance (Chilembwe, 2014:63).

According to Bennett and Dearden (2014:108), MPAs are important to the conservation of the marine environment and to fisheries. The community has the potential to reap benefits from the conservation and management of MPAs through spill-over of fish into local fisheries (Bennett & Dearden, 2014:109). It is generally acknowledged that less privileged communities are dependent on marine resources such as fish (Lopes et al., 2015:333). South Africa. Departmental of Environmental Affairs (2016:4) notes that by no means such dependency by the poor or even the rich approves the exploitation of these services without proper monitoring. A study conducted in 2014 by Bennett and Dearden (2014), with a specific focus on the community's perceptions of MPAs in Thailand, analysed why local people do not support conservation. A mixed-methods approach inclusive of both interviews and household surveys was employed to yield the necessary data. The study revealed that perceptions of MPAs were fairly negative, inter alia because of reduced access and lack of development. This paper concluded that the enhancement of MPA governance and management systems has the potential to foster good relationships between MPAs and local communities. Another study conducted in 2013 in Aruba by Luksenburg and Parsons (2014:135) addressed "attitudes towards marine mammal conservation issues before the introduction of whale watching". The methodological approach adopted in this study was quantitative, employing a pre-designed questionnaire comprising 25 questions aimed at both residents and tourists. This study revealed both tourists' and residents' relative paucity of knowledge of marine mammals. It was also evident that the locals especially did not know or understand the specific identity and population of marine species in Aruban waters. This also impacted on their understanding of conservation issues. From these studies it can be deduced that a lack of communication co-exists between MPA management and the community regarding the misuse and conservation of these areas. In the context of the study, this lack of understanding may result in communities not maximising socio-cultural impacts associated with CMT opportunities.

MPAs have received some criticism from local communities for leading social, economic and political impacts negatively. This therefore is a cause for concern as the support and positive perceptions of locals are imperative for the success of MPAs. Balmford et al. (2015:3) argue that support from locals is heavily dependent on policies as well as the management and effectiveness of such policies when implemented.

As mentioned previously, local communities are often dependent on CMT-related activities for their livelihood. Diving tourism falls within the category of CMT-related activities and is discussed in the next section.

## 2.7 Diving tourism

Diving tourism is associated with non-consumptive tourism (Tremblay, 2001; Burgin & Hardiman, 2015; Pires et al., 2016; Zimmerhackel et al., 2018). The concept of non-consumptive tourism, where tourists get to view wildlife with no detrimental damage to the species in question, has continued to grow over the past decades (Bejder et al., 2006:1793; Hammerschlag et al., 2006:568; O'Malley et al., 2013:4). According to O'Malley et al. (2013:6), viewing maybe opportunistic or solely focused on a specific species. As much as opportunistic terrestrial viewing such as safaris in Africa is well established, Burgin and Hardiman (2015:212) note that viewing focused on marine life is relatively recent.

In 1999, Van Treeck and Schuhmacher (1999:500) noted a booming industry in diving tourism. According to Van Treeck and Schuhmacher (1999:499), underwater tourism was gaining in popularity. Diving tourism mainly targets relatively small coastal areas of tropical underdeveloped countries. For some of these countries, the income generated from diving tourism represents a large percentage of the fiscal budget (Sudara & Nateeharnchanalap, 1989:274; Craik, 1992:126). Diving tourism forms a niche market in the tourism industry (Townsend, 2008:143). According to Garrod and Gössling (2008:7), "diving tourism involves individuals travelling from their usual place of residence, spending at least one night away, and actively participating in one or more diving activities such as scuba diving, snorkelling, snuba or the use of rebreathing apparatus". The most popular and recognised form of diving globally with

an excess of 20 million certified divers, is scuba diving (Professional Association of Diving Instructors, 2012:2). The South African International Maritime Institute (n.d.) notes a global increase in the demand for experienced divers. Scuba Travel (2018) recognises South Africa as among the top 20 dive sites in the world. For the South African diving industry, this is a positive indication as it exposes the country to potential markets, thus strengthening and growing the industry. Taljaard et al. (2012:45) also note that South Africa's coastline is attractive to visitors from around the world because of the variety of marine species and the country's long summers. This supports the perceived growth of the diving industry in South Africa.

# 2.7.1 Shark cage diving

In the last decade, marine and recreational tourism industries have shown phenomenal growth, of which shark tourism activities, with shark cage diving included, have constituted part of this growth (Apps et al., 2018:110). This and other forms of wildlife viewing have increased in popularity globally, and swimming with the 'Great White' has thus turned out to be the ultimate life experience among certain wildlife fanatics or enthusiasts.

According to Apps et al. (2018:111), shark cage diving is defined as "being partially submerged in the water while inside a cage for the opportunity to have a breath-taking encounter with the sharks". They add that this opportunity to view sharks does not really happen by chance, as the sharks are lured close to the cage using 'chum', which is a composition of fish mixture comprising flesh and oils. Because sharks are incredible predators, they will search and follow the scent trail of the chum, which results in the sharks coming closer to the boat. Once the shark is in the vicinity of the boat, bait and decoys are used to try and keep it interested, thereby giving clients on the boat or inside the cage the chance to view these fascinating creatures.

In South Africa, shark cage diving is predominantly found in the Western Cape, with Gansbaai being the top diving spot with eight operators, followed by False Bay with three operators and Mossel Bay with one operator.

Shark cage diving is also found in KwaZulu-Natal, at the Aliwal Shoal in Umkomaas. The Aliwal Shoal is regarded among the best diving places in South Africa and is rated as one of the top ten diving sites in the world (Travel Butlers, 2017). The major drawing card is the Ragged-tooth

Shark, commonly known as 'Raggy' to the local diving community. This shark species is spotted from July to November during their annual migration from the Cape to the St Lucia Marine Reserve for gestation (Travel Butlers, 2017). The southern and eastern coast is home to ragged-tooth sharks in South Africa (Two Oceans Aquarium, 2017). Ragged-tooth sharks are threatened globally owing to late sexual maturity and they give birth to few young (Oceans Africa, 2017). Because of over-fishing, it has been reported that the population of these sharks has decreased dramatically, thus making them highly vulnerable (Oceans Africa, 2017). Ragged-tooth shark populations have been seriously depleted in Australia and the USA because of over-fishing.

The Western Cape is home to the Great White Shark. The Great White Shark, more accurately knows as *Carcharodon carcharias*, belongs to the family of *Lamnidae* (Great White Shark Diving, 2017). The *National Geographic* (2017) adds that great whites are torpedo-shaped and have powerful tails which are able to propel them through the water at a speed of up to 15 miles per hour. Great Whites are known to be the largest predatory fish on Earth and grow to an average of 15 feet in length and weigh up to 5000 pounds (*National Geographic*, 2017). According to Live Science (2017), great whites are found mostly along the coasts of Australia, South Africa, California, and the north-eastern United States. Great White Shark Diving (2017) lists popular hotspots for great white sharks around the world are South Africa, Australia, Isla de Guadeloupe and California. The North Atlantic and Mediterranean were once among the most populated oceans; however owing to heavy fishing, shark numbers decreased.

According to *National Geographic* (2017), Dyer Island, South Africa, is densely populated with great whites, making the area a prime location for research. Xplorio (2017a) claims that Gansbaai is the great white shark diving capital of the world, making it one of the only places where people can participate in this activity at any time of the year.

## 2.7.2 Shark cage diving in Gansbaai

In the past decade, the great white shark cage diving industry has become a booming industry (Johnson & Kock, 2006:42). The industry in Gansbaai is said to have started with two research boats whose aim was to monitor the movements of the sharks (Shark Zone, 2015). It was then evident that this area had high numbers of great white sharks, which shortly gave birth to the

shark cage diving in industry in Gansbaai (Shark Zone, 2015). The shark cage diving industry in Gansbaai is now said to be more than 20 years old with eight certified operators in the area (Xplorio, 2017b).

With the concept of ecotourism gaining momentum in recent years in South Africa, people visiting Cape Town continue to show interest in shark cage diving and are increasingly adding it to their "to do" list (*Cape Town Magazine*, 2017). With no diving experience and certification needed, just about anyone can participate in a shark cage dive in Gansbaai (*Cape Town Magazine*, 2017).

Gansbaai is acknowledged as the capital of great white sharks globally, with an estimated population of around 1500 sharks (Shark Seekers, 2018). It is noted that it is because of the abundance of energy-rich food that so many great white sharks are prolific in Gansbaai (White Shark Cage Diving, 2017). Shark Alley, which is described as a small channel of water passing between Geyser Rock and Dyer Island, is where all this rich food is found, hence the population of great whites (South Africa.net, 2018). Geyser Rock is also home to a huge colony of Cape Fur Seals, with the population estimated at around 60 000 (South Africa.net, 2018). The sharks are said to move constantly back and forth along the coastline with some travelling further afield to Mozambique and Madagascar (The Roundhouse, 2012).

Shark diving trips are weather dependent and usually take about three to four hours; however these and launch times are confirmed well in advance by the operators (Marine Dynamics, 2011). From the harbour, it takes about 15–20 minutes to the dive site (Marine Dynamics, 2011). Compared with other top diving sites in the world, Gansbaai has the shortest distance to the dive site, as per the figure below.

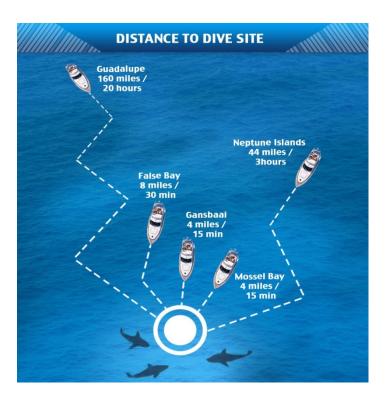


Figure 2.8: Distance to dive sites in areas offering shark cage diving (Xplorio, 2017a)

Gansbaai is also among the places where shark cage diving happens throughout the year (Cape Point Route, 2017). Upon arrival, visitors are served with breakfast or lunch and receive a briefing of the day. Following the briefing it is a short walk to the harbour where the boats are assembled and clients embark and go on a 15–20-minute boat cruise to Shark Alley where the sharks are found (White Shark Diving Company, 2017). The crew will then find the best spot to work with for optimal viewing, depending on the winds, current and anchor (Shark Zone, 2015). Luring the sharks to the boat can take anything from two to twenty minutes, or in the worst-case scenario, there might be no sharks at all, culminating in an unsuccessful trip (Reprobate, 2013). As the great white shark is a wild animal and it is not easy to predict nature, no viewings are sometimes experienced for a period of time (Haden, 2017).

The shark cage diving operators in Gansbaai are fully aware of and actively involved in conservation and raising public awareness of the sharks (Marine Dynamics, 2011).

There are eight licensed shark cage diving operators in Gansbaai. They generally offer breakfast or lunch, and at times both, and supply transport from Cape Town (Xplorio, 2017b). These are:

- Marine Dynamics Shark Tours
- Supreme Sharks
- White Shark Safaris
- Shark Lady Adventures
- Shark Diving Unlimited
- White Shark Projects
- Shark Cage Diving Tours
- White Shark Ecoventures

Xplorio (2017a) shows how Gaansbaai compares favourably with the top five hot spots for shark diving in the world – Table 2.3 serves as an indication.

Table 2.3: Shark cage diving in different destinations globally

	Guadalupe, Mexico	False Bay, South Africa	Gansbaai, South Africa	Mossel Bay, South Africa	Neptune Islands, Australia
Operators in the area	2	3	8	1	2
Years in industry	9	15	23	16	42
Underwater visibility average	20–50 m	5–20 m	5–20 m	5–10 m	10–20 m
Cage diving seasons	Aug-Oct	Apr-Sept	All year round	Apr-Sept	Dec–Feb and May– Oct
Seeing great whites breach	No	Yes	Yes	Yes	No
Distance to dive site	160 miles/20 hours	8 miles/30 minutes	4 miles/15 minutes	4 miles/15 minutes	44 miles/3 hours
Qualifications necessary	PADI open water licence	No licence needed	No licence needed	No licence needed	PADI open water licence

Source: Xplorio (2017a)

## 2.8 Conceptual framework

The next section discusses the conceptual framework of the study. A conceptual framework is a product which described visually or in narrative form, the main aspects to be studied. These include key factors, variables or key concepts, as well as the presumed relationships between them (Huberman & Miles, 1994:430). Ngai et al. (2015:34) add that conceptual frameworks make conceptual distinctions while organising ideas as well as capture something real which will be easy to implement and remember.

Numerous studies have been conducted around the world to quantify the economic value of protected areas and national parks (Curtin Business School, 2014) relevant to determining the economic value of activities related to CMT. According to Stynes (1997:12), economists depend on models to quantify economic impacts. The following section highlights some of the models which have been developed to evaluate the economic impact of tourism and recreation in natural environments. Various models have been implemented and changed throughout history in order to adapt to changes in consumer behaviours (Mihajlovic & Koncul, 2016:920).

Stynes (1997:15) noted an increase in curiosity regarding the economic impacts of tourism from businesses and public organisations. Economic analyses could influence decision making in tourism. Stynes (1999:1) contends that prior to evaluating the economic impact of tourism, the following questions should be addressed and understood:

- What does an economic impact analysis refer to?
- What queries does an economic impact analysis address?
- What economic impacts are achieved from tourism?
- What are multiplier effects?
- How are the economic impacts of tourism estimated?
- What approaches are used when conducting an economic impact assessment?
- What are some of the approaches or models adopted when measuring economic impacts in tourism?
- What steps should be followed when conducting an economic impact assessment?
- What questions should be asked when conducting an economic impact study?
- What will be the budget of an economic impact study?

A clear understanding of the above questions will assist in yielding better results. The models and approaches discussed address these questions and their processes. These models are used as tools to quantify the economic impact of tourism in tourism economies, which therefore become relevant to the current study which aims to determine the economic impact of tourism in Gansbaai.

## 2.8.1 Input-Output (I-O) models

I–O models are tools which have been widely used to evaluate the economic impact of tourism in tourism economies (Seow, 1981, Liu & Var, 1982, Schaffer & Davidson, 1985; Heng & Low, 1990). Frechtling (2013:7) brings to our attention that the first model was developed years ago as a tool to assess the secondary impacts of shocks to a national economy, whether tourism or otherwise. The I–O model was first proposed by Leontief, a Russian-American economist, in 1937, as a simple linear model to determine production quantities and prices in a situation where a commodity was paired up with a commodity (Polo & Valle, 2012:227). I–O models provide multipliers which can be utilised to estimate economic effects of an economy (Bess & Ambargis, 2011:2). Nationally, I–O models are based on I–O tables constructed from the supply and tables of a country's System of National Accounts (SNA) (Frechtling, 2013:7). The model presents the final consumption of any given industry's output and estimates impact (Frechtling, 2013:7). Regionally, I–O multipliers share similarities with those deemed as national or macroeconomic multipliers (Bess & Ambargis, 2011:2). Both types of multipliers provide ways to estimate the effects an initial change in activity has on a particular economy.

When estimating economic impacts, three categories are considered (Wagner, 1997:596):

#### Direct impacts

These include spending generated directly by businesses or persons from any given activity. They also constitute the initial impact to the economy.

#### Indirect impacts

These include spending generated by other firms which provide services to the direct activity.

### Induced impacts

These include spending generated when direct and indirect employees and business owners spend on other sectors of the economy, which increases sales.

Stynes (1997:11) states that in order to determine the economic activity or spending to be included, a region must be clearly defined. Stynes (1997:4) adds that "the spending of visitors within the local area becomes sales or receipts for local businesses or other organizations selling products and services to visitors". This therefore emphasises the importance of clearly defining the region to be studied. Spending which takes place within 30 miles of the activity or destination will be considered as impacting the economic activity (Stynes, 1999:4).

Stynes (1997:17) identifies the following as common errors in estimating impacts using I–O models:

- Not providing a clear definition of the activity from which impacts will be drawn
- Making use of multipliers which are not appropriate for the exercise
- Confusion from confusing economic impacts with benefits to users
- Not separating local spending from visitor spending, therefore not accounting for spending from the local region

Furthermore, Saayman et al. (2009:6) state that I–O models are often not feasible, even in South Africa, as they are expensive to develop owing to the extensive data necessary to carry out the act.

#### 2.8.2 General Equilibrium Models

According to Dwyer (2015:115) "real world features of demand and supply that affect the economic impacts of shocks to tourism expenditure can only properly be taken into account using Computable General Equilibrium models". Although the I–O model has been widely used across the globe, it is also well known for its limitations (Fernando et al., 2015:3). The authors state limitations, such as the I–O model being entirely driven by the demand side, and ignore the supply constraints as well as price effects. To overcome the limitations of the I–O model, some

researchers have adopted a more sophisticated tool known as the General Equilibrium Model, commonly known as the Computable General Model (CGE).

In Athens, Greece, in 2014, the model was intended to cover the general economic growth as well as support the study of issues related to policies. Furthermore, the CGE model has been developed in various countries with the main goal of examining the economic impact of tourism (Fernando et al., 2015:3). Fernando et al. (2015:4) provide a recent survey of tourism based on CGE modelling, but revealing that defining the tourism sector still remains somewhat problematic. The majority of previous studies identify the tourism sector as a collection of sectors like hotels and other accommodation, while other studies recognise the tourism sector as a separate final demand. Arguably, this approach to modelling is capable of underestimating the true size of tourism-related sectors because of its limitation to capture the full range of multiplier effects (Fernando et al., 2015:3). Therefore, the major challenge of previous studies was the inability to agree on the most appropriate manner to incorporate the tourism sector into the model.

Countries such as Australia, New Zealand, the United States of America, Mauritius, Indonesia, and Malaysia have employed the CGE models to quantify the economic impacts of tourism in their marine environments (Holmes et al., 2015; Stynes, 1997:5). Borges (1986:15) states that the most significant strength of the GCE model is its solid microeconomic foundation. As much as GCE models incorporate an I–O framework, Dwyer et al. (2004:310) posit that "they also model markets for goods and services and factor markets, recognize resource limitations, model consumer spending, allow for government spending and taxing and allow for external constraints". Therefore, this makes the GCE model more suitable than the I–O model. The CGE model can be applied broadly in tourism as a tool for impact and benefit analysis (Dwyer et al., 2004:311). Below are some of issues which can be explored by adopting the GCE method:

- How will a change in domestic or international tourism impact the economic activity of a country?
- How will the economic activity be affected by tourism-specific tax such as bed tax?
- How will tourism crises affect the economy?
- What impact will international aviation regulations have on tourism activity and the economy?
- How will general tax impact the tourism sector and output generally?

### 2.8.3 Tourism Satellite Accounts (TSAs)

Adopted by the United Nations (UN), the TSA is a national accounting framework designed for measuring goods and services associated with tourism within international standards, definitions, concepts and classifications (Stats SA, 2015:4). Frentt and Frechtling (2015:546) note that the TSA is an important new macro-economic policy developed in the past few decades for the analysis of tourism demand and its impact on national economies. The recommended TSA Framework 2008 was developed by the United Nations World Tourism Organization (2013:18), the Organisation for Economic Co-operation and Development (2017), Eurostat (2017) and the United Nations Statistics Division (United Nations, 2010:4). The United Nations (2010:5) acknowledges that this recommended framework is the result of many years of effort by various countries, individuals, and institutions to try to integrate the measurement of tourism as an economic phenomenon in the category of macroeconomic statistics (United Nations, 2010:4). Its approach stems from adopting the principles and structure of the internationally adopted System of National Accounts (SNA) to measure the economic impact of tourism (Frechtling, 2013:7).

According to the United Nations World Tourism Organization (2013:3), the TSA assists decision makers with the following:

- Formulation of policies
- Reliable data on the economic impact of tourism on employment as well as the economy
- Measuring non-resident and domestic tourism and employment associated with it
- Ability to compare tourism with other sectors
- International comparisons in future

Countries such as Australia, Canada, Chile, France, New Zealand, and the United States have used the TSA methodology since one of the benefits is that it allows countries to carry out the work on their own using data from their institutions (United Nations World Tourism Organization, 2013:9). In South Africa, the TSA is conducted by Stats SA (2015:4). Stats SA (2015:4) acknowledges that in South Africa, statistical information is mainly based on arrivals and overnight statistics, Balance of Payments (BoP) information and South African Tourism (SAT) surveys which do not capture the entire economic activity of tourism and do not necessarily

produce sufficiently accurate information to guide policy makers and business operators (Stats SA, 2015:4).

# 2.8.4 Cost Benefit Analysis (CBA)

CBA is described as "an analytical tool for judging the economic advantages or disadvantages of an investment decision by assessing its costs and benefits in order to assess the welfare change attributable to it (European Commission, 2015:25). The Department of Environmental Affairs and Tourism (DEAT) simply notes that CBA is a tool which ranks projects and then chooses the most appropriate one (South Africa. Department of Environmental Affairs and Tourism, 2004:4). Typically, the CBA analytical framework refers to a number of underlying concepts as outlined below (European Commission, 2015:25):

## Opportunity cost

The opportunity to gain from the best option or substitute selected ones from various mutually exclusive alternatives.

## Long-term perspective

A long-term approach is employed, ranging from a minimum of 10 years to a maximum of 30 or more, depending on scope of project.

Calculating economic performance indicators presented in monetary terms

The CBA provides monetary value to all positive (benefits) and negative (costs) welfare effects of the intervention. In order to calculate the total benefit, these values are discounted then added. The project overall performance is measured by a set of indicators which are Economic Net Present Value (ENPV) and the Economic Rate of Return (ERR), thus allowing comparison between projects or alternatives which are competing.

## Microeconomic approach

The CBA is normally a microeconomic approach enabling the assessment of a project's impact on society through the use of indicators.

Like any other methodological frameworks, the CBA also consists of a specific type of structure. The Commonwealth of Australia (2006:14) proposes a structured process which agencies are encouraged to follow when conducting a CBA Assessment. Figure 2.9 presents this structure:

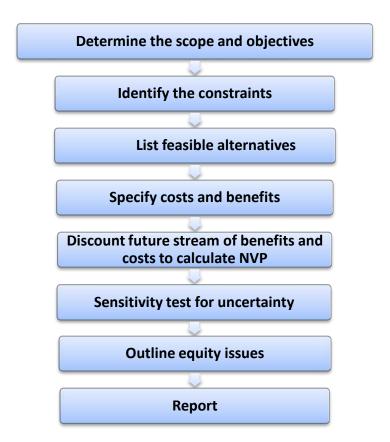


Figure 2.9: Key steps when conducting a CBA assessment (Commonwealth of Australia, 2006:14)

The CBA facilitates meaningful comparisons, is conducive to good programme management, encourages clear thinking with regard to true 'value added' and can assist in legislative queries (Commonwealth of Australia, 2006:9).

## 2.8.5 Visitor spending surveys

As mentioned previously in this study in chapter one, in order to assess the contribution of tourism activities, an economic impact analysis is required (Stynes, 1999:3). Stynes (1999:6) points out that some of the key questions that need to be addressed when doing an economic impact study are:

- How much income do households and businesses earn from tourism?
- How much employment does tourism support in the area?
- What tax revenue does tourism generate?
- What portion of the local business sales can be attributed to tourism?
- How much spending do tourists do in the area?

Frechtling (1994:430) indicates that in order to measure economic impacts, secondary data from governmental economic statistics, economic base models, input—output models, multipliers and visitor spending surveys should be analysed.

For the purposes of this study, visitor spending surveys were used to determine the economic impact of shark cage diving tourism in Gansbaai. Frechtling (2006:5) confirms that the findings from questions on spending surveys can present relative estimates on visitor expenditure, thus allowing conclusions to be drawn. Surveys of travellers can be conducted at entry, at exit or on site. For this research, surveys were conducted at exit level.

Frechtling (2006:27) notes determining the spending of visitors in an area chosen for a study is not too complex and the researcher should also include the following considerations:

- The visitor does not live in the study area on a permanent basis
- The visitor purchases or consumes products offered at the study area while visiting

Fredman (2008:298) observes that "the goal of the overall tourism industry is to maximise profit, while individual businesses hope tourists will buy their products, and the communities of tourist destinations hope to increase economic development". Fredman (2008) examined expenditure studies at mountain resorts in Sweden. The author's emphasis is mainly on determining where and how visitors are spending their money. The author further examines spending levels against

length of stay and group size, and determines that when the group is larger and the stay is longer, more spending occurs (Fredman, 2008:298). Fredman (2008:300) further surveys spending at the destination and spending while travelling to the destination, and concludes that individuals who regarded the main leisure activity as 'very important' for the entire experience spent more money to get to the mountains. The author cites willingness to pay as a means of capturing non-market values, for example, the value of being in nature.

According to Imler (2011:12) "economic impact analysis allows stakeholders to identify industrial sectors that have the largest influence on a region's expenditures, payroll income and employment". These results can further be considered in policy formulations and decision-making processes for governments and businesses alike. Frechtling and Horvath (1999:326) shed light on the process of conducting an economic impact analysis during a study of visitors to Washington, DC. They indicate two types of data essential to an economic impact analysis:

- Visitor spending which is broken down into different sectors
- Multipliers required in order to draw conclusions for economic impact analysis

The data can then be used to create estimates relating to direct and indirect spending, payroll impacts, and employment (Frechtling & Horvarth, 1999).

Stynes (1999) provides guidelines for measuring visitor spending by noting that in order to estimate the economic impact of a tourism activity or recreation, one usually has to begin with an estimate of visitor spending associated with the action; this spending is typically estimated through visitor surveys. Additionally, Stynes (1999:1-2), presents the preliminary considerations involved in designing spending studies for an impact economic analysis as inclusive of the areas cited below:

#### Visits data

The requirements of good spending estimates often stem from good information. Therefore prior to any spending study, it is important to have a clear understanding of the information that is available as well as its accuracy. A good starting point is having a relative number of the visitors affected at a given study area. It is also important that the units are compatible with the units of

analysis in order to yield accurate data. It is also important to include key questions such as party size and length of stay.

### The study region

An economic impact study requires a defined study region and the survey should be administered within this region. It is particularly important to isolate spending within the local region if visitors stop at various stops while on extended trips. It is only the portion of spending that occurs within the given region that is attributable to local economy impacts.

#### Types of spending covered

There are three kinds of spending that generate impacts:

- 1. Trip spending by visitors
- 2. Durable goods' purchase of visits and households in the area
- 3. Government or organisational spending

Each kind of spending will usually be measured individually and often only one type is primary. Trip spending is usually gathered from on-site visitor surveys, durable goods from household surveys and/or secondary data, and government spending from internal records of organisations.

#### Spending categories

Spending should be measured from a set of clearly defined categories. These categories identity the type of spending relevant to the region and what should be reported on. In addition, clearly defined categories identify the products and services purchased as well as the types of businesses making these sales. For trip spending, the following indicators are recommended:

- Accommodation divided according to offering type
- Food and beverages divided between groceries and restaurants
- Transport
- Public transport

- Recreation and entertainment fees as well as admissions
- Souvenirs and other trade-related purchases
- Unit of analysis

This can vary based on the length of stay and the definition of the spending unit. It is recommended to start with visitor day or night as the basic unit of analysis for spending studies. In many instances, per-day estimates will be derived from per party trips based of the length of stay in the area. Spending should be estimated from when the visitors arrive at the area to when they leave.

#### Local visitors

It is important to separate local residents from non-residents in order to calculate regional flows of foreign currencies. In other economic impacts analysis studies, only non-resident spending is regarded as new currency to the region and spending of local residents does not necessarily represent new spending. However, separating non-residents from visitors can also be regarded due to their significant difference in spending patterns.

Stynes (1999:4) highlights some common errors involved in visitor spending surveys. The main errors are:

#### Measurement error

Regarded as the difference between what visitors report on in the survey and what they actually spent. The wording and format of survey questions as well as sequencing of questions have the ability to influence the reliability and validity of data.

## Sampling errors

Errors can occur due to selected participants not being representative of the entire population, and these errors are quite common. It is recommended that researchers have a good understanding of the population prior to sampling. Non-representative samples can affect results negatively. Confidence intervals should also be reported for spending estimates. Sampling error

is mostly attributable to sample size and the amount of variance in spending within the study population.

### Analysis error

Many other errors may occur during data capturing and analysis. Spending questionnaires are often not fully completed. Therefore, results can vary in respect of how unanswered questions are handled. The question is should unanswered questions be regarded as zeros or be discarded.

### 2.9 Summary

There are various elements which contribute to CMT and its importance to coastal economies. This chapter focused on the global perspective of CMT as well as the South African narrative, with an emphasis on impacts. The chapter examined the challenges faced by the CMT sector, together with the legislative practices that govern this sector. A section on the profile of visitors discussed the types of visitors that participate in CMT, as well as their needs, as these have implications for service providers. The chapter also discussed diving tourism as a component of CMT and shark cage diving in Gansbaai. Lastly, the chapter discussed the conceptual framework on quantifying impacts in CMT.

The next chapter discusses in detail the research methodology employed in the study.

#### **CHAPTER THREE**

# **RESEACH DESIGN AND METHODOLOGY**

#### 3.1 Introduction

This chapter provides an overview of the methods employed to complete the study successfully. The methods were selected with the intention of answering the following research questions:

- What is the profile of visitors participating in shark cage diving in Gansbaai?
- What are the expenditure patterns of visitors participating in shark cage diving in Gansbaai?
- What role does shark cage diving play in tourists' decisions to visit South Africa?

The objectives presented above will contribute to the broader aim of the study – that of assessing the contribution of shark cage diving tourism to the coastal economy of Gansbaai. This could determine the possibility of further development in the area for a more profound impact on the local economy.

The chapter details the processes and procedures in respect of the research and discusses the methods used to carry out the research. The chapter also provides the rationale for the methods selected and explains the choice of sampling techniques in order to yield reliable data. It is imperative to employ the correct methods; therefore the methods adopted are explained in different sections of this chapter.

### 3.2 Study area and the research activity

The study was conducted in Gansbaai, an area situated in the Overberg District Municipality, in the Western Cape province. The town of Gansbaai lies between Hermanus and Pearly Beach and is approximately 170 kilometres from Cape Town (*Cape Town Magazine*, 2016). Figure 3.1 shows the town of Gansbaai and its location along the coast.



Figure 3.1: Map of Gansbaai (Maplandia, n.d.)

Gansbaai is acknowledged as the capital of the great white shark (*Carcharodon carcharias*) globally, with an estimated population of around 1500 sharks (Gansbaai Info, 2016). The sharks are said to move constantly back and forth along the coastline, with some travelling as far afield as Mozambique and Madagascar (The Roundhouse, 2013). The sharks' prevalence is due to the abundance of energy-rich food (Reprobate, 2013). Shark Alley, a small channel of water between Geyser Rock and Dyer Island, has an abundance of this rich food, hence the population of great whites (Oceans Africa, 2017). Geyser Rock is also home to a huge colony of Cape fur seals, with the population estimated at about 60 000 (Oceans Africa, 2017).

The shark cage diving industry in Gansbaai started with two research boats whose aim was to monitor the movements of the sharks (Gansbaai Info, 2016). It then became evident that this area had a large population of great white sharks, which gave birth to the shark cage diving industry in Gansbaai. The shark cage diving industry in Gansbaai is now more than 20 years old, with nine certified operators in the area (Gansbaai Info, 2016).

Shark cage diving trips are weather dependent and usually take about three to four hours; however trips and launch times are confirmed well in advance. From the harbour, it takes about 15 to 20 minutes to the dive site (Marine Dynamics, 2017). Compared with other top diving sites in the world, Gansbaai has the shortest distance to the dive site. Gansbaai is also among the

places where shark cage diving happens throughout the year; however winter is regarded as the high season and summer as the low season for shark viewing (Marine Dynamics, 2017). In the past decade, great white shark cage diving has become a booming industry.

There are eight shark diving operators in Gansbaai alone, with another three in False Bay and one in Mossel Bay (Johnson & Kock, 2006:43). However, one operator closed down in Gansbaai at the end of 2017, leaving eight in operation (Marine Dynamics, 2017). This demonstrates a stunted growth in the shark cage diving industry as the number of operators has not increased since 2004; instead the number has decreased. With the concept of ecotourism having gained momentum in recent years in South Africa, people visiting Cape Town continue to show interest in shark cage diving and are increasingly adding it on their 'to do' list (Dive the Big Five, 2017). With no diving experience and certification needed, just about anyone can participate in a shark cage dive in Gansbaai (Xplorio, 2017b).

Upon arrival, visitors are served with breakfast or lunch and are briefed on the events of the day. Following the briefing it is a short walk to the harbour where the boats are assembled and clients embark on a 15 to 20 minute boat cruise to Shark Alley where the sharks are found. The crew will then find the best spot for optimal viewing, depending on the winds, current and anchor (Shark Lady Adventures, 2017). Luring sharks to the boat can take anything from 2 to 20 minutes, or in the worst-case scenario, there might be no sharks at all, culminating in an unsuccessful trip. As the great white shark is a wild animal and it not easy to predict nature, no viewings are sometimes experienced for a period of time.

The shark cage diving operators in Gansbaai are fully aware of and are actively involved in conservation. They also take pride in raising public awareness of sharks. Their staff go through intensive training and have years of experience in the industry. They are always willing to share their knowledge about the great whites (Marine Dynamics, 2017).

As previously mentioned, there are eight licensed shark cage diving operators in Gansbaai (one has closed down). They generally offer breakfast or lunch and at times both, and supply transport from Cape Town. The operators are:

- Marine Dynamics Shark Tours
- Supreme Sharks

- White Shark Safaris
- Shark Lady Adventures
- Shark Diving Unlimited
- White Shark Projects
- Shark Cage Diving Tours
- White Shark Ecoventures

## 3.3 Research design and methods

Katz and Martin (1997:2) define research as a study and investigation, especially for the discovery of new facts. Steneck (2007:90) concurs and describes research as a process for discovering new Knowledge. Kothari (2004:32), however, states that research is an original contribution to the existing body of knowledge. No matter the subject of research, the value of research is dependent on how well it is designed and carried through (Steneck, 2007:91). This therefore highlights the importance of research design and procedures. Greenfield (1996:115) makes the following statement about research: "Research is an art aided by skills of inquiry, experimental design, data collection, measurement and analysis, by interpretation, and by presentation." In essence, research is an investigation into processes.

Kothari (2004:31) notes the research design is the structure within which the research is conducted and it forms the blueprint for data collection, measurement and data analysis. The author further describes research design as a "plan, structure and strategy to find out alternative methods to solve the problems and to minimize the variances". There are various types of research design suited to various types of research projects (Walliman, 2011:9). The choice of an appropriate design is dependent on the nature of the problems posed by the aims of the research (Walliman, 2011:9). According to Williams (2007:65), research originates from at least one question regarding a phenomenon of interest. The author further notes that research questions that emerge from the point of interest then assist the researcher to gather thoughts and select the most appropriate approach appropriate to the phenomenon of interest. A research method is simply a technique used for collecting data (Bryman, 2016:40). The common approaches to conducting research are qualitative, quantitative and mixed methods (Walliman, 2011:9).

Qualitative research is characterised by its aims to understand particular aspects of social life, with methods that generally gather words rather than numbers, while quantitative data methods aim to measure something in numerical form, such as percentages (Patton & Cochran, 2002:2). Qualitative research seeks to understand a given research problem from the perspective of the local population it works with and is often effective in obtaining specific information about behaviours, values, opinions and social contexts of populations (Mack et al., 2005:1). The authors contend that the strength of the qualitative research approach rests in its ability to capture complex textual descriptions of how individuals view a specific research issue. Creswell (2012:19) notes that the qualitative approach to data collection makes use of strategies of enquiry such as surveys to yield data from predetermined instruments.

The three most common methods used in qualitative research are participant observation, indepth interviews and focus groups, while for quantitative research, surveys or questionnaires are commonly used for collecting data (Mack et al., 2005:2). The basic differences between qualitative and quantitative methods are reflected by Mack et al. (2005:2) as follows:

- The type of questions they pose
- Their analytical objectives
- The forms of data each produces
- The types of instruments used for data collection
- The degree of flexibility built into the study design

The mixed-methods research approach includes the integration of both qualitative and quantitative methods within a single investigation or study (Wisdon & Creswell, 2013:1). Also known as triangulation, this approach is often applauded for its ability to produce a more solid foundation for drawing conclusions; however it has limitations such as time constraints (Bryman, 2016:36).

The intent of quantitative research is to establish, confirm or the validation of relationships and to develop generalisations which contribute to theory (Williams, 2007:66). For the purposes of this study, a quantitative method was adopted. Quantitative methods "emphasize objective measurements and the statistical, mathematical or numerical analysis of data collected through polls, questionnaires and surveys, or by manipulating pre-existing statistical data using

computational techniques" (Dunton et al., 2017:3). In essence, quantitative data is focused on numerical data in order to understand a certain phenomenon.

## 3.4 Data-collection methods and techniques

The section below highlights the methods and techniques adopted for the data-collection process as well as data analysis.

# 3.4.1 Population and sampling

The population refers to all the members who meet the criterion identified for a research study (Alvi, 2016:10). Windham (n.d) adds that a target population is a group of individuals selected by the researcher for study. The population is the first step in the sampling process (Delice, 2010:2007). Therefore, sampling is defined as a smaller number of individuals from a population for research purposes (Alvi, 2016:11). The primary goal of sampling is to allow the researcher to draw accurate generalisations from a large group of subjects under investigation (Draugalis & Plaza, 2009:2). Furthermore, the sample selection should be an accurate representation of the population as far as possible. For the sample to match the population, the sample was selected at a 95% confidence level (Isaac & Michael, 1981:193). The population, target sample and actual sample are presented in Table 3.1.

Table 3.1: Population and sample

Visitors (October – December 2015)	Population	Targeted sample	Actual sample
International visitors	4626	319	338
Domestic visitors	434	42	40
TOTAL	5060	361	378

## 3.4.1.1 Sampling techniques

A sample is expected to be a reflection of the population it is derived from; however there is no guarantee that any sample will be the precise representation of the population (Mugo, 2002:3). There are two types of sampling which exist: probability and non-probability sampling (Latham, 2007:2). In probability sampling, each subject has a fixed, recognised opportunity to belong to the sample, whereas in non-probability sampling there is no guaranteed probability of a subject to be part of the sample (Surbhi, 2016). Essentially, every member has a fair chance of being selected in probability sampling, which cannot be said for non-probability sampling. In quantitative research, probability sampling is suitable, as the aim is to measure variables and generalise findings drawn from a representative sample of an entire population (Hardon et al., 2004:22). Ritchie (2003:26) agrees that probability sampling is employed in quantitative research, ideally in questionnaires. This enables a representative sample to be drawn from the population.

For the purpose of this study, probability sampling was used as the nature of the study is quantitative. The specific method of sampling used for the study is the proportionate sampling method. This method is used when the population consists of various subgroups that largely differ in number and the number of subjects from each subgroup is determined by their number relative to the population (Hansen et al., 1993:150). In applying this method, the intention was to capture both international and domestic visitors. This sampling method was suited to this research as it excluded locals from the sampling, thus randomly selecting visitors from outside the Gansbaai area. A tour operator noted that the November to January months represent a period when more domestic visitors participate in shark cage diving as opposed to other months of the year (Marine Dynamics, 2016). No data was collected during this period and only a pilot was conducted in January 2017.

#### 3.4.2 Primary and secondary data

Both primary and secondary sources of data were used for the purposes of this study. Hox and Boeije (2005:593) define primary data as data collected for a specific research problem at hand, making use of procedures best suited to the research problem. For the purpose of this study, surveys questionnaires were used to collect primary data from the intended population.

Secondary data is data collected by another individual for another primary purpose in research (Johnston, 2014:619). For this study, journal articles, books, government publications, internet sources and theses and dissertations were used as secondary data.

## 3.4.3 Validity and reliability

Validity and reliability denote the extent to which the idea is measured accurately in quantitative research (Heale & Twycross, 2015:66). The authors provide the example that if, for instance, a survey is to explore depression, but in actual fact measures anxiety, that survey would not be considered valid. In other words, validity and reliability refer to the extent to which a survey can be used several times in the same situation and produce consistent results (Kimberlin & Winterstein, 2008:2277). Heale and Tywcross (2015:3) further advise that it is important to consider the validity and reliability of the data-collection instruments when conducting research. In order to ensure validity and reliability in research, a pilot study may be conducted with individuals who are similar to the intended participants. This can also be supported by relevant literature reviews and other forms of evidence where available (Roberts & Priest, 2006:43).

In order to ensure the validity and reliability of the study, the following steps were taken:

- Secondary data was studied and various previous research instruments by Saayman and Saayman (2004) and Saayman et al. (2011) were scrutinised in order to adapt them to the current instrument.
- An experienced assistant fieldworker was selected to assist with the administering of the survey questionnaire. The fieldworker was apprised thoroughly of the study objectives.
- A pilot study was conducted at the study site prior to data collection, and the survey was adjusted to rectify errors before the actual data-collection period commenced.
- Analysis software (SPSS) was used to analyse the correctly completed survey questionnaires and generate accurate tables.

## 3.4.4 Pilot survey questionnaire

A pilot study is the 'pre-study' of your actual study (Woken, 2013:1). Hassan et al. (2006:70) endorse the pilot study as one of the most important steps in a research project. It is conducted to discover potential problem areas and possible errors in the research instruments prior to

implementation of the actual study. Therefore, a pilot study is a trial run of the study. For the purposes of this study, a pilot study was scheduled to be conducted in October 2016; however owing to the delay in ethical clearance, the pilot study was conducted on 11 January 2017. During the implementation of the pilot study, the researcher distributed 20 survey questionnaires to respondents of the targeted population. Minor changes, including correction of grammatical errors and layout of questions, were made to the original survey questionnaire. The researcher then proceeded with the actually data collection soon after adjustments had been made. The data collected during the pilot study was not used.

## 3.4.5 Survey questionnaire

A questionnaire is generally the first tool people consider when conducting research (Research Connections, 2016). Patten (2016:10) notes that a questionnaire is a set of questions for gathering data from individuals. For this study, a structured, closed-ended and self-administered survey questionnaire was used to target visitors participating in shark cage diving in Gansbaai. According to Siniscalco and Auriat (2005:23), the main advantage of closed-ended questionnaires is that the participant is restricted to a fixed set of responses that are relatively easy to answer.

The survey was distributed by the researcher and assistant fieldworker to the respondents at various locations. The assistant fieldworker was selected on merit as an experienced interviewer. The assistant fieldworker holds a master's degree in Tourism and Hospitality Management and has extensive experience in fieldwork and supervision. After the visitors have participated in the shark cage dive, they head back to their operator where they are served a meal and get to see the shark cage dive they have just experienced. There is also a short debrief. After the debrief, the researcher and assistant fieldworker used the opportunity to introduce the research and administer the survey questionnaire to the visitors. The survey was constructed in English owing to time and budget constraints. This would have required more time and money to construct various survey instruments with various languages. More printing would be needed and translator applications Although the majority were international visitors, the pilot study proved that this was no major concern as most of the visitors could read and speak English. The researcher and assistant fieldworker were faced with language issues only on two

occasions with a group from Spain and another from South Korea, however the data collection process with these groups was well managed as both groups had a translator on site.

The researcher and assistant fieldworker then collected the survey questionnaires after completion by the respondents and immediately did quality checks to monitor completeness on all survey questionnaires after each group. Initially, the data-collection process was scheduled to take place from October to December 2016; however owing to delays in ethical clearance, the data-collection period was between 31 January and 18 April 2017 in Gansbaai. This took place at various shark cage diving operators who had agreed to assist with the data-collection process. Prior to the researcher's and assistant fieldworker's travelling to Gansbaai, the operators were called and informed that data collection would be done on a particular day. Over the three-month period, seven trips to Gansbaai, each comprising a two-night stay, were undertaken by the researcher and assistant fieldworker. The data-collection process was scheduled to end in March 2017. However, owing to sharks' non-appearance in Gansbaai, two trips had to be cancelled and moved to April to make up the required numbers.

The survey questionnaire was designed for the visitors. The survey collected information on the profile and expenditure patterns of the shark cage diving industry in this region as well as determining the attraction of shark cage diving in South Africa for international visitors. The survey was divided into five main sections:

#### A. Profile of visitors

Noted place of origin and group dynamics, as well as general statements on characteristics of trip.

## B. Adventure tourism and shark cage diving tourism

Noted the behaviour of the respondents with regard to adventure tourism. This section also elicited perceptions of visitors regarding Gansbaai as a destination.

#### C. Expenditure patterns

Focused on the size of group and spending behaviours in given categories such as accommodation, transport and dining, as well as spending activities while in Gansbaai.

#### D. Shark cage diving in Gansbaai

Considered shark cage diving in Gansbaai, choice of operator, as well as satisfaction levels.

#### E. Demographics

Solicited information on education, occupation and age.

It is important to note that the survey questionnaire excluded local visitors and only focused on visitors from beyond the area. Based on the individual travel cost method, it is assumed that individuals residing far from the recreation site are likely to spend more money and participate in fewer trips than those residing nearby (Du Preez et al, 2012:389). Based on this, visitors were segmented according to visitors from outside the designated area, thus excluding locals.

#### 3.4.6 Method of analysis

To analyse the data, SPSS Version 24.0 was used to analyse the data. According to Arkkelin (2014:10), the package allows one to gather statistics ranging from simple descriptive numbers to more complex analysis with various matrices. Use of this software allows data to be summarised and described, and presented as graphs, bars and other graphic visuals.

#### 3.4.7 Ethical considerations

In order to ensure the integrity of the study, ethical considerations are of great importance. The Center for Innovation in Research and Teaching (2016) deems ethics in research to be critical. When attempting to conduct research, it is important to be aware of the general agreement among researchers with regard to what is acceptable and not acceptable when pursuing or conducting an investigation (Sales & Folkman, 2000:20). According to the Canterbury Christ Church University (2006:2), the researcher is responsible for ensuring that the welfare of respondents is not compromised and that respondents remain out of harm's way. Ethical approval was received from the Cape Peninsula University of Technology to conduct the study. Subsequent to the approval, a meeting was held with the tour operators in Gansbaai requesting approval to conduct the research at their companies. Written consent was received, granting the researcher access to collect data at their locations and assuring the researcher of their full. Ethical approval and the written consent letters are attached as Appendix A, B and C.

Seale (2012:58) and Veal (2006:65) provide a summary of the most fundamental provisos of social research:

The study should be beneficial to society

- Researchers conducting the study should be under supervision or suitably qualified
- Participation should be voluntary
- Informed consent is required
- No harm of any kind should ensue to participants
- Data should be treated with integrity and honesty

For the purposes of this study, ethical practices were observed and the above-mentioned agreements led the data-collection process. Ethics in research also means that "social science research must concern itself with 'moral integrity' to ensure that the research process and findings are 'trustworthy' and valid" (Mollet, 2011:1). Verbal consent from participants was sought prior to questionnaire distribution and participants were assured they could withdraw from the study should they feel they no longer wished to participate in the study.

## 3.5 Summary

This chapter addressed the methodological techniques used in the study. It highlighted the research design and methods used in the data-collection process of the study. It further discussed in detail the sampling methods used in the study. This chapter also presented the procedures followed pre, during and post the data-collection process and noted that the SPSS package was used to analyse the data. In the next chapter, the research findings from the analysed data are presented and discussed.

#### **CHAPTER FOUR**

#### ANALYSIS, PRESENTATION AND DISCUSSION OF DATA

#### 4.1 Introduction

The previous chapter outlined the methodological processes adopted to carry out the study as well as the analytical tools used for analysing the data. This chapter provides in detail the data gathered during the data-collection process through self-administered survey questionnaires, and presents the findings elicited from visitors who participated in shark cage diving in Gansbaai. In order to provide further clarity on and comprehension of the results of the study, tables and figures are included. The following are discussed in this chapter:

- Profile of visitors
- Adventure tourism and shark cage diving tourism
- Expenditure patterns
- Shark cage diving in Gansbaai

The visitors were handed the survey questionnaire post the shark cage diving experience and completed the survey themselves with the researcher and assistant fieldworker present. Participation in the survey was completely voluntary and no visitors were forced to participate in the survey. This accords with the ethical considerations presented in Chapter 3.

#### 4.2 Profile of visitors

This section discusses data related to demographics, type of tourist, group dynamics, and purpose of travel of the visitors.

## 4.2.1 Gender, marital status and age

Figure 4.1 demonstrates the gender of the participants (n=378). Most visitors were men (55.6%), while the rest were women (44.4%). These results show women increasingly taking part in

activities previously dominated by men. Schanzel and Yeoman (2015:144) concur and note that women represent the demographic with the fastest growth as they are more actively participating in physically challenging leisure activities previously the domain of men. The respondents were asked if they were married or single, with an option to specify if they fell outside these categories. Figure 4.2 represents the marital status (n=351): 53.3% were single while the rest were married (46.7%). If not married or single, visitors were asked to specify and the following responses were received: couple (2.6%, n=10), divorced (1.1%, n=4), engaged (2.4%, n=9) and separated (0.3%, *n*=1). The remaining three respondents did not disclose their marital status. These results demonstrate that shark cage diving in Gansbaai attracts both single visitors as well as married couples. Figure 4.3 depicts the age of respondents (n=378). The majority were between the ages of 31 and 40 (34.3%), followed by 21-30 (32.7%) and 41-50 (24.7%). In separate categories, 3.2% (n=12) of the respondents were below the age of 20 but above 18 and 0.3% (n=1) were above 70 years of age. The remaining respondents from the separate categories (1%) did not disclose their age. This presents strong interest from the millennial segment of visitors and less interest from mature visitors. According to the UNWTO (2011), this segment is estimated to generate around 300 million annual trips by 2020.

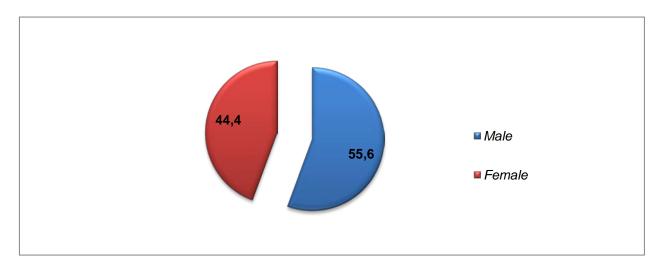


Figure 4.1: Gender (in %, *n*=378)

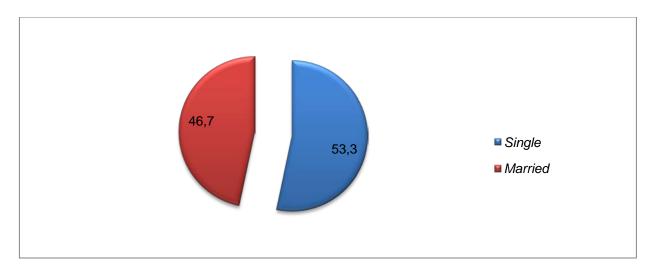


Figure 4.2: Marital status (in %, *n*=351)

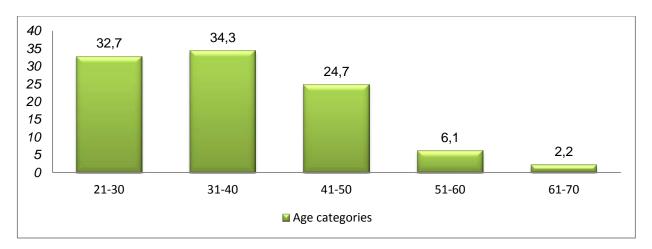


Figure 4.3: Age categories (in %, *n*=378)

## 4.2.2 Income, education and occupation

Figure 4.4 demonstrates the monthly net income of visitors (n=176). The majority of visitors earn between R40 001 and R50 000 (52%) followed by R30 001 to R40 000 (19.4%). In other categories, 7.45% (n=27) of visitors earned above R50 000, with an average of R81 500. Others provided a confidential response (44.4%, n=168), with the researcher acknowledging that seven respondents (n=7) indicating no income fell under the category of 'student' and 'unemployed'. Considering the arguably high cost of shark cage diving, the responses are indicative of high income earners who can afford this experience.

Figure 4.5 presents the educational levels of the respondents (n=378). Of those willing to declare their educational status (n=373), most of the respondents hold a university degree (55.3%) followed by a postgraduate degree (31.2%) and primary/secondary school (12.2%). In the 'other' category, one respondent noted college (0.3%) with one percent not disclosing their educational status. This demonstrates that shark cage diving attracts visitors with a good level of education, willingness to learn, and interest in the marine environment and conservation. This is supported by Custódio Santos et al. (2016:659), noting that the millennial segment represents the segment globally recognised as having the highest level of education compared with previous generations.

Figure 4.6 is an illustration of the occupational categories of respondents willing to disclose these (n=373). A large majority of the respondents are employed full time (70.2%). In the 'other' section, one respondent noted gap year (0.3%) and the remaining four respondents did not disclose their occupational status. A combined analysis of the results presented in Figure 4.4 and those emerging from Figure 4.6 depict the relationship between employment and the affordability of shark cage diving.

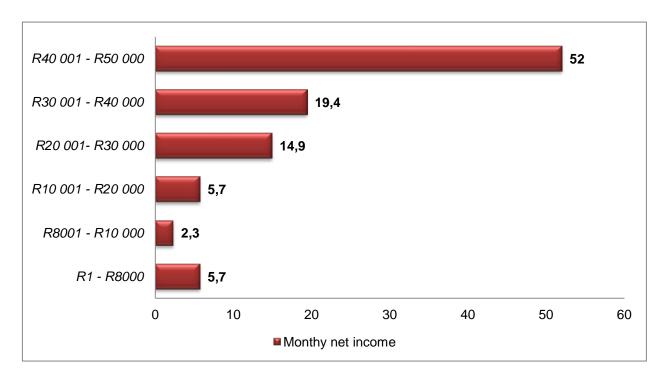


Figure 4.4 Monthly net income (in %, *n*=176)

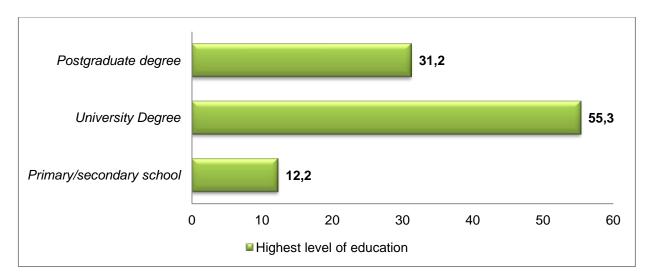


Figure 4.5: Level of education (in %, *n*=373)

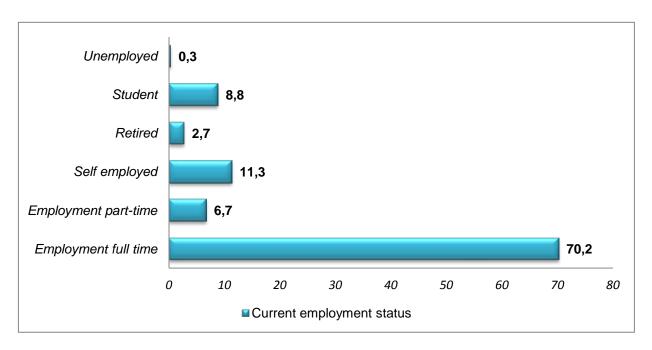


Figure 4.6: Occupational status (in %, *n*=373)

# 4.2.3 Type of visitor and origin

Figure 4.7 reflects the type of visitor participating in shark cage diving in Gansbaai (n=378). A large majority of the respondents were day visitors (82%) while a minority were overnight visitors (18%). These findings provide a clear indication that most shark cage diving visitors in Gansbaai do not stay overnight in the region. This also is an indication that Gansbaai is not a popular

destination for overnight visits and that people mostly are familiar with one activity in the area, that is, shark cage diving. Figure 4.8 demonstrates the origin of visitors participating in shark cage diving. An overwhelming majority of respondents were international visitors (89.4%) while 10.6% were national visitors. This clearly shows that this activity attracts the international market more than the domestic market. According to Stats SA (2017a), KwaZulu-Natal, the Eastern Cape, and Limpopo are the most popular destinations for overnight domestic visitors.

Table 4.1 presents the continents of origin of international respondents (*n*=338). Most respondents came from Europe (42.1%), followed by North America (21.7%), South America (8.9%), Asia (8%), and Africa (5.1), with the least from Oceania (4.8%). The top three countries from Europe were the UK, Germany, and the Netherlands. From North America, the top three countries were the USA, Canada, and Mexico. The top three countries from South America were Brazil, Argentina, and Peru. The top three countries from Asia were Malaysia, Russia, and the United Arab Emirates. From Africa, the top three countries were Madagascar, Namibia, and Zambia. This is supported by figures released by Stats SA (2017b) that the top five countries with the largest number of tourists to South Africa were the USA, UK, Germany, the Netherlands and France, which comprise the above-mentioned continents. Figure 4.9 illustrates the domestic visitors who participated in the survey (*n*=40): almost half came from Gauteng (45%) followed by the Free State (22.5%) and KwaZulu-Natal (17.5%), with the lowest number from the Eastern Cape (2.5%). There were no visitors from Limpopo, Mpumalanga and the Northern Cape captured from the collected surveys.

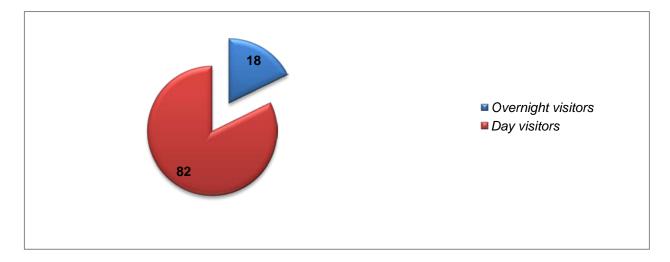


Figure 4.7: Type of visitor (in %, *n*=378)

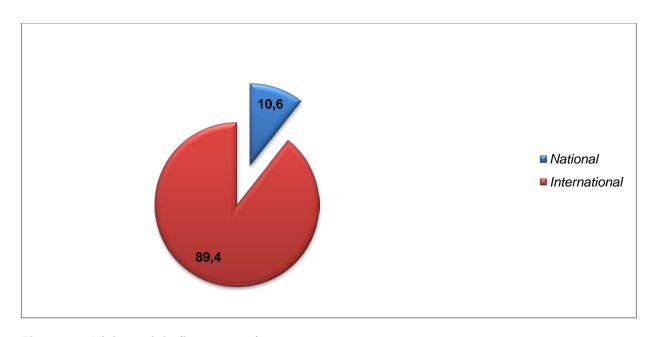


Figure 4.8: Visitor origin (in %, *n*=378)

Table 4.1: Continent of origin (in %, n=338)

CONTINENT OF ORIGIN	FREQUENCY	PERCENT
Europe	161	42.7
North America	80	21.2
South America	36	9.4
Asia	21	5.6
Africa (Excluding SA)	21	5.6
Oceania	19	4.9

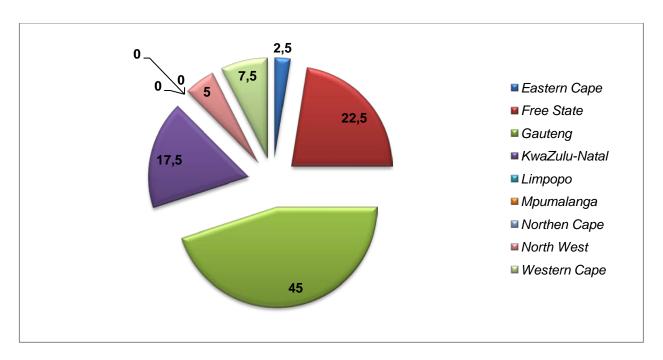


Figure 4.9: Province of origin for domestic visitors (in %, *n*=40)

### 4.2.4 Composition of group

Figure 4.10 demonstrates the composition of the group of respondents that participated in shark cage diving. Mostly the respondents comprised friends (31.4%), followed by family (24.4%) and alone (21.7%), with the least being a tour group (2.7%). In the 'other' option, visitors noted 'couple' and this comprised 1.3% (n=5). This denotes that the majority of visitors to Gansbaai travel in the group 'family and friends', yet there are those who interestingly travel alone. Schanzel and Yeoman (2015:141) support this finding and note that family travel is expected to grow at a more rapid rate than all other forms of leisure travel, mostly because it represents a period where the family can spend more time together away from home and create memories.

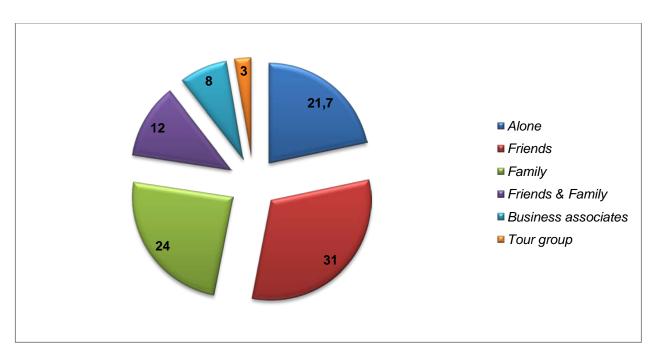


Figure 4.10: Composition of group (in %, *n*=373)

#### 4.2.5 Purpose of travel and mode of transport to Gansbaai

Figure 4.11 portrays the purpose of travel to Gansbaai (n=367). All respondents came from outside the Gansbaai region as the sampling technique adopted in the study excluded locals. More than half of the respondents indicated travelling to Gansbaai for a holiday (79.8%), followed by business (10.9%), with 8 visiting friends and family, and only a few (1.1%) indicating incentives. There were no responses for medical. In the 'other' option visitors indicated shark cage diving (2.4%, n=9), volunteering, and wedding (0.3%, n=1) respectively. This strongly confirms Gansbaai as a holiday destination.

In terms of previous visits to Gansbaai (n=378), a large number of the respondents indicated that this was their first trip to Gansbaai (91%), followed by second-time visitors (6.9%), with third-and fourth-time visitors reflecting 1.1%. If more than four times, visitors were asked to specify, and some visitors noted 8 and 10 times (0.3%, n=1) respectively. This demonstrates that most of the time Gansbaai receives new visitors, while reflecting a low rate of repeat visitors.

Figure 4.12 demonstrates the mode of transport visitors used to get to Gansbaai (*n*=364). More than half of the respondents indicated guided tour (57.7%) followed by hired car (41.8%), with

public transport the least (0.5%). In the 'other' option, visitors mentioned own car (1.3%, n=5), transfer from Hermanus (1.3%, n=5), motorbike, shuttle bus, and volunteer programme (0.3%, n=1) respectively. The remaining respondent (n=1) did not mention any form of transport. It is important to note that the volunteer respondent was not a volunteer with the operators in Gansbaai, as the study excluded volunteers (acknowledged as a limitation of the study). These results highlight a split between arranged guided tours to hired cars when visitors drive to Gansbaai. This also depicts Gansbaai as a safe and simple self-drive destination.

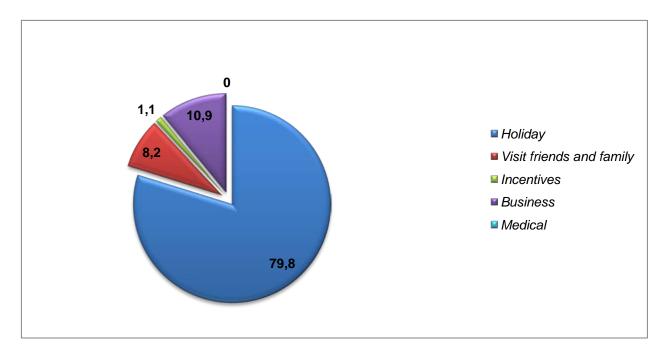


Figure 4.11: Purpose of travel to Gansbaai (in %, *n*=367)

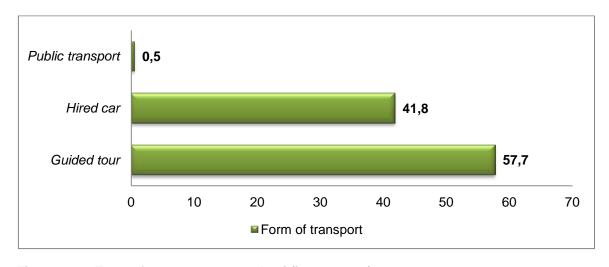


Figure 4.12: Form of transport to Gansbaai (in %, n=364)

## 4.3 Adventure tourism and shark cage diving tourism

This section discusses other forms of marine-based activities which appeal to individuals, including their reasons for participating in shark cage diving, as well at the appeal of Gansbaai as a shark cage diving destination.

#### 4.3.1 Marine-based activities

Figure 4.13 demonstrates the type of marine-based adventure activities which appeal to visitors in general. Multiple responses were permitted for this question and the most popular was shark cage diving (77%), followed by whale watching (55%), snorkelling (31%), and scuba diving (23%), with the least popular being surfing (21%). In the 'other' option, visitors were asked to specify other activities that appealed to them and were not included in the survey, but none provided a response. The figures stipulated above suggest interest in shark cage diving activities as a strong drawcard. Whale watching also seems to be making inroads into these markets.

Figure 4.14 presents respondents' reflections in assessing if the shark cage dive they participated in while in Gansbaai was their first marine wildlife tour at any destination (n=378). Just above half of the respondents indicated 'yes' (53%) while the rest indicated 'no' (47%). This shows an almost equal split between the visitors, which suggests an increased interest in participation in marine-based activities. According to the South African Institute of International Affairs (2018:3), the travel and tourism projected GDP annual growth rate in coastal tourism from 2013 to 2022 is 3.9%. This is therefore a good indication that tourism is growing and will continue to grow.

Figure 4.15 represents a follow-up question to the respondents who indicated 'yes' to the question in Figure 4.14. The respondents were asked if they would be interested in joining any other marine wildlife tours in the future; multiple responses were permitted. The respondents indicated a whale-watching tour as the top activity they would be interested in (40.2%), followed by a dolphin-watching tour (26.5%), with a turtle project rated lowest (13.2%). There were no responses to the 'other' category. Figure 4.16 provides a summary of the respondents who indicated 'no' to the question in Figure 4.14. Since this was not their first marine wildlife tour, they were asked which activities they had participated in previously. Most noted a whale-

watching tour (25.7%), followed by a dolphin-watching tour (22.8%), and shark cage diving (14.8%), with the lowest rating a turtle project (7.9%). Multiple responses were permitted in this question. In the 'other' option, visitors were asked to specify other activities which they have participated in and the following responses were received: scuba diving (2.1%, n=8), manta ray watching (0.5%, n=2), diving, Galapagos, regular shark dive and sting rays (0.3%, n=1), respectively.

The visitors were then asked if this was their first experience of a shark cage diving tour in Gansbaai specifically (n=375). A large majority (94.9%) indicated that this was their first experience of shark cage diving in Gansbaai, while very few (5.1%) indicated that they were repeat visitors. This strongly suggests that Gansbaai mostly receives new visitors who participate in shark cage diving.

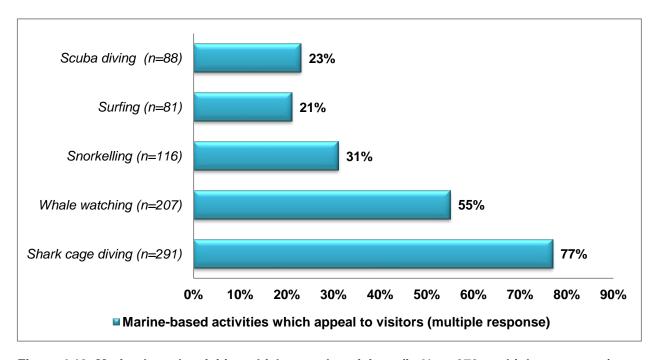


Figure 4.13: Marine-based activities which appeal to visitors (in %, *n*=378, multiple responses)

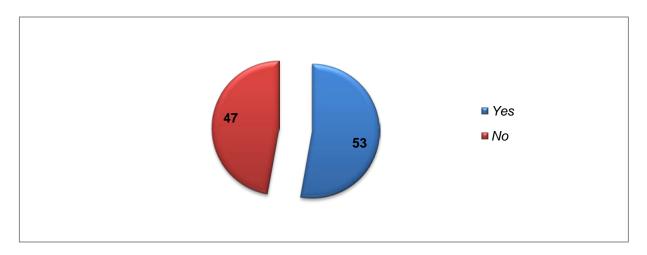


Figure 4.14: First marine wildlife tour (in %, *n*=378)

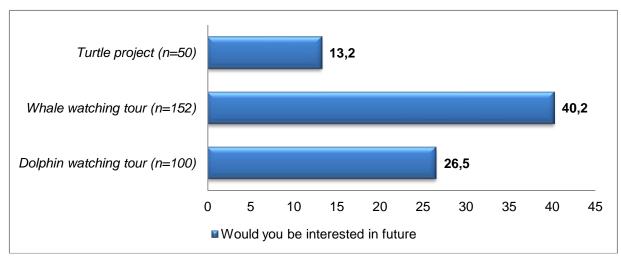


Figure 4.15: If 'yes', activities of interest in future (in %, *n*=302, multiple responses)

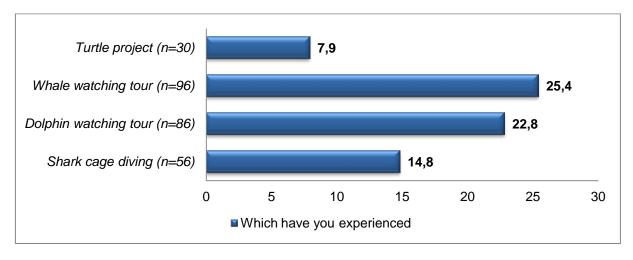


Figure 4.16: If 'no', previous marine activities experienced (in %, n=268, multiple responses)

The results shown in Table 4.2 demonstrate the extent to which visitors agreed or disagreed with statements on why they participate in shark cage diving (n=378). There was general agreement with the statements: 60.8% of the respondents agreed to strongly agreed that they participate in shark cage diving to learn more about sharks, while 27.2% remained undecided, 65.9% agreed to strongly agreed that they wanted to learn more about the marine environment, and 80.6% agreed to strongly agreed that they wanted to experience the great white shark in its natural habitat. This is supported by the study conducted by Lent (2015:1), which notes that more and more people are increasingly developing an interest in the conservation of marine mammals and the benefits they bring to coastal communities. Apps (2018:98) concurs that visitors value cage diving as an opportunity for learning, with the focus on habitat, conservation and biology. The respondents agreed to strongly agreed that they wanted to see an endangered species (75.5%) and others agreed to strongly agreed that they participated in shark cage diving because they had an interest in sharks (74.1%). According to the Dyer Island Conservation Trust (2018:2), scientists estimate that to date there are only 3 500 great white sharks left in the ocean. Because of these low figures, visitors are showing greater interest in seeing an endangered mammal before numbers decrease further.

A large majority of the respondents (71.2%) agreed to strongly agreed that they yearned for the adrenalin rush, while 63% agreed to strongly agreed that shark cage diving was on their bucket list. Just over half of the respondents (50.9%) agreed to strongly agreed that they took part in shark cage diving because it was affordable, while 24.5% remained undecided. Similarly, 54.7% of the respondents agreed to strongly agreed that they wanted to overcome fear, with 76% agreeing to strongly agreeing that they were seeking a new wildlife experience. Fifty-six percent (56%) agreed to strongly agreed that they were 'crazy about' shark cage diving, while 25.3% remained neutral. This therefore describes the profile of visitors who participate in shark cage diving as individuals, and who yearn for new adrenalin rush experiences which are meaningful to their lives, while in touch with nature. Lastly, respondents agreed to strongly agreed (68.7%) that they wanted to get away from their routine and try sometime new, while 18.8% were undecided. Ngwira and Kankhuni (2018:4) support these results in noting that tourists visit different destinations with the aim of escaping their daily routine or alleviating stress and by taking part in something new to boost their self-esteem. This shows strong support for shark cage diving with regard to personal motivation. It also demonstrates the willingness to learn aspect regarding sharks and the marine environment. This is in agreement with the results revealed in the study (Figure 4.5) that individuals who participate in shark cage diving are well educated, with the

majority holding at least a university degree, which emphasises their interest in learning and awareness of environmental issues.

Table 4.2: Reasons for visitors' participation in shark cage diving (in %, n=378)

Table 4.2: Reasons for visitors' participation in shark cage diving (in %, <i>n</i> =378)					
I take part in shark cage diving	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
to learn more about sharks	3.7	8.3	27.2	46.1	14.7
to learn more about the marine environment of the area	2.7	9.9	21.6	38.4	27.5
to experience the great white shark in its natural habitat	1.9	3.5	14.1	30.7	49.9
to see an endangered species	2.9	4.5	17.1	42.4	33.1
because I have an interest in sharks	1.1	5.9	18.9	40.5	33.6
for the adrenalin rush	4	6.9	17.9	38.1	33.1
because shark cage diving is on my bucket list	9.1	7.2	20.8	33.1	29.9
because shark cage diving is affordable	10.4	14.1	24.5	30.4	20.5
to overcome fear	16	10.4	18.9	33.1	21.6
for a new wildlife experience	4.5	6.1	13.3	40.3	35.7
because I am crazy about shark cage diving	7.2	11.5	25.3	31.7	24.3
to get away from my routine and try something new	5.6	7	18.8	39.7	29

# 4.3.2 Gansbaai as a shark cage diving destination

Respondents were asked to indicate their opinion with regard to Gansbaai as a shark cage diving destination. Figure 4.17 shows what visitors viewed as advantages of Gansbaai as a shark cage diving destination: multiple responses were permitted. More than half (58.7%) of the respondents noted natural appeal, followed by trained staff (36%) and accessibility (25.7%). The lowest ratings were good accommodation (9.3%) and good restaurants (4.5%). In the 'other'

option, one respondent (0.3%) noted that Gansbaai is the best place in the world to see sharks. These results present a positive opinion of Gansbaai as a shark cage diving destination. Furthermore, these responses underscore the importance of tourism's existence at a destination as dependent on an amalgamation of different components. Ngwira and Kankhuni (2018:1) suggest that the debate whether tourist attractions actually attract tourists is relatively new on the academic platform. According to Hu and Wall (2005:617), "tourist attractions are an essential ingredient for successful tourism destination development". Benur and Bramwell (2015:215) concur that destinations rely on their primary tourism offerings as a basis to attract visitors. This therefore emphasises the importance of tourism products at a destination as a mechanism to attract tourists to visit them. McKercher (2016:121) adds that destinations are also made more appealing by other components such as professionalism, hospitality and the skills possessed by the human element of tourist destinations.

Figure 4.18 is an illustration of what visitors regard as disadvantages of Gansbaai as a shark cage diving destination; multiple responses were permitted. Only a few respondents cited disadvantages, with 10.6% noting pollution, followed by poor infrastructure (6.9%), overcrowding (6.9%) with the least being crime (3.2%) and poor service quality (2.1%). As much as these figures are low and do not portray too much negativity with regard to the destination, it does suggest that there is room for improvement and further development to the area. Bhola-Paul (2015:208) notes that tourism is the result of the interaction between tourists, tourism operators, host communities and host governments in hosting visitors. Thus, it should be a joint effort among all stakeholders to ensure less negativity in respect of tourism destinations. Destination image is the combination of perceptions, beliefs, actual feel, knowledge and overall impression of a destination and is crucial to the purchasing power of tourists (Haarhoff, 2018:1). An oversight of these perceptions by tourism planners could militate against tourism growth. Asadzadeh and Mousavi (2017) note that some disadvantages of tourism at destinations include the destruction of wildlife and plants, an increase in pollution, excessive construction which affects natural appeal, scattering of waste in coastal waters, and ecological damage, to name a few. These disadvantages are not foreign to the Gansbaai region and were revealed in the results of the study.

Figure 4.19 is an illustration of the possible threats to the shark cage diving industry. Half of the respondents noted that sharks are being killed (50.3%), followed by unethical practices (32.8%) and unsafe practices (27.5%), while a very few noted that shark cage diving tourism is

expensive (8.2%). This shows a concern among visitors regarding the decline in shark species in the global marine environment. *National Geographic* (2018) notes that great white shark populations are decreasing because of accidental fishing catches, among other factors, hence are considered vulnerable species. This also justifies concerns around controversial ethical issues regarding shark cage diving in the shark cage diving tourism industry, and that visitors still believe that the way in which sharks are lured to the boats for viewing purposes is unethical. Provisioning or feeding of wild marine mammals enhances the visitor experience, as operators can almost guarantee close interactions with wild mammals (Ziegler et al., 2018:265). This is considered disrupting the natural behaviour of nature.

The World Wide Fund for Nature (2019) believes that marine mammals such as sharks, whales, seals, and dolphins are disturbed by the increased number of boats as well as people approaching too closely to them. Unethical behaviour is regarded as actions deemed morally incorrect or not proper for an industry, a profession or an individual (Your Dictionary, 2018). Keating (2008:404) defines unethical behaviour in tourism as those actions by tourism providers that impact negatively on the visitors' satisfaction with the perception and overall experience of the destination. However, Parsons (2012:2) argues that unethical issues in marine-based tourism include the optimisation of economic benefits and visitor experience while undermining the negative effects on marine mammals.

Visitors were then asked what other tourism products they were familiar with that complement the shark cage diving experience in Gansbaai – multiple responses were permitted. As demonstrated in Figure 4.20, 56.9% were familiar with whale watching, followed by hiking and camping (21.2%) and the African Penguin and Sea Bird Sanctuary (14%), with the least being the Walker Bay Nature Reserve (5.3%). In the 'other' section, visitors were asked to specify other products which might not have been stipulated in the survey and only two respondents (0.5%) indicated scuba diving. This suggests that as much as visitors are aware of Gansbaai as a shark cage diving destination, they are aware of whale watching as well. Other products do not seem to be as popular; therefore operators need to refocus their marking strategies to encourage more overnight visits in the area. The packaging of tourism products is known to provide benefits to destinations such as convenience to customers as well as the exposure of less recognised activities (Destination New South Wales, 2018:28). Destination New South Wales (2018:28) adds that it is important to create packages that can be easily mixed and matched to suit the identified market of that particular destination.

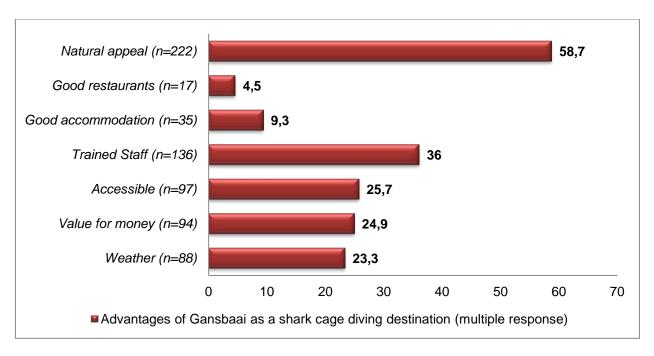


Figure 4.17: Advantages of Gansbaai as a shark cage diving destination (in %, multiple responses)

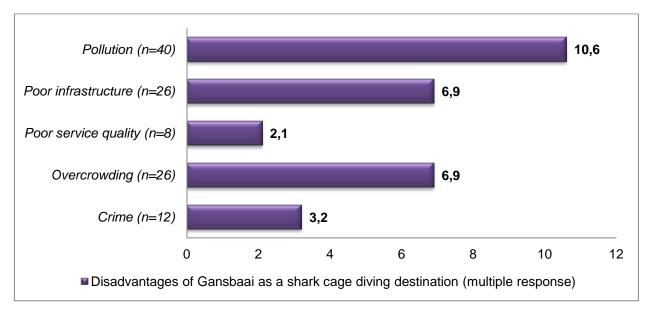


Figure 4.18: Disadvantages of Gansbaai as a shark cage diving destination (in %, multiple responses)

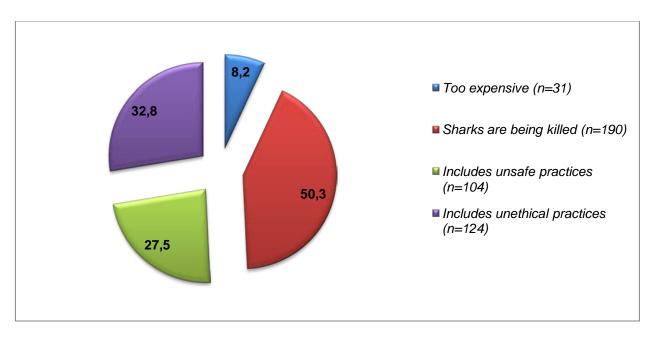


Figure 4.19: Possible threats to shark cage diving tourism (in %, multiple responses)

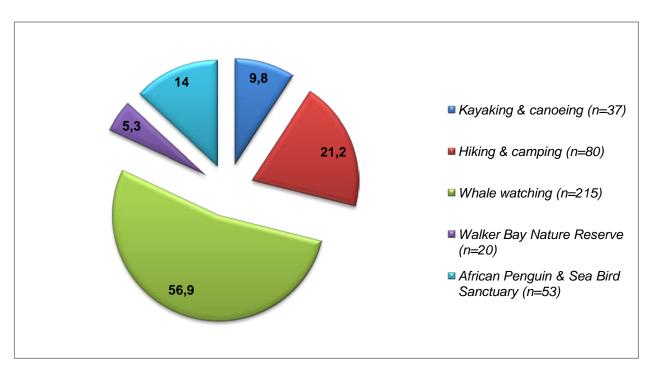


Figure 4.20: Other tourism products in Gansbaai which complement shark cage diving (in %, multiple responses)

## 4.4 Expenditure patterns

The following section discusses the expenditure patterns of shark cage diving visitors in Gansbaai as well as nearby towns.

### 4.4.1 Accommodation and number of nights

Figure 4.21 shows the number of people who were being paid for in their travel group including themselves (n=339). Of the respondents, 50.7% indicated paying for themselves followed by two people (35.4%) and four people (6.2%). If visitors paid out of the given categories, they were asked to specify. From these the respondents indicated zero (6.9%, n=26), six (0.5%, n=2), (0.3%, n=1), seven, eight and eighteen (0.9%) respectively. The respondents who indicated zero (6.9%) are those who did not pay for the shark cage dive in cash; however they participated in the trip with a complimentary ticket or as an incentive. This indicates that most visitors pay for their own travelling costs, with a further large number indicating that they pay for two people as they are travelling as a couple.

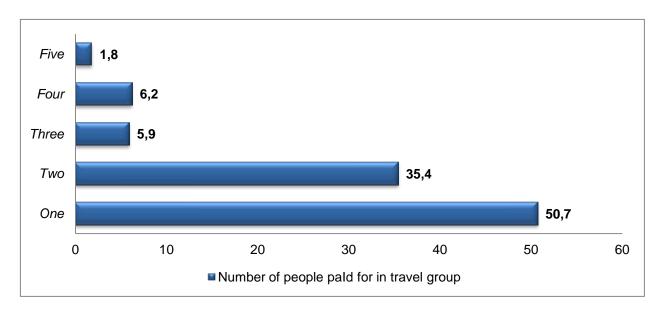


Figure 4.21: Number of people being paid for in travel group (in %, n=339)

Table 4.3 reflects the types of accommodation visitors used in various areas. In South Africa, visitors mostly used a guesthouse (4%), followed by a hotel with no identified rating (3.2%) and a three-star hotel (2.4%) (BusinessTech, 2017). However, Stats SA (2017b:26) indicates that

hotels were the most frequently used accommodation establishments (974 000), followed by guesthouses (840 000). However, these numbers refer to general visitors and not shark cage diving visitors specifically. The average number of nights spent in South Africa is 9.8 nights, while Stats SA (2017b:29) notes that the average stay is five nights. In Gansbaai, the study revealed that visitors mostly used a guesthouse (5.6%) and the average number of nights spent in Gansbaai was 3.7 nights. In their report, the Overstrand Municipality (2010:24) indicated that the average length of stay of visitors in the Overstrand region for self-catering establishments was three nights. In Kleinmond, one respondent made use of a guesthouse (0.3%) and the average nights spent was one. In Stanford, visitors made use of a guesthouse (0.5%) and a cabin (0.3%). The average number of nights spent in Stanford was 3.5 nights. In Hermanus, visitors mainly made use of a guesthouse (2.4%) and the average number of nights spent was 2.9 nights. In other nearby towns, visitors made use of a questhouse (0.5%) and three-star hotel (0.5%) among others, with an average nights' stay of 7.5 nights. In other areas in the Western Cape, visitors mostly made use of a guesthouse (11.6%), an Airbnb (9.3%) and a four-star hotel (8.7%) among others, with an average stay of 8.7 nights. The total average of all accommodation including all areas is 11.2 nights.

Table 4.3: Type of accommodation in various areas (in %)

ACCOMMODATION TYPE	FREQUENCY	PERCENT		
	SOUTH AFRICA (n=78)			
3* hotel	9	2.4		
4* hotel	8	2.1		
5* hotel	2	0.5		
Airbnb	4	1.1		
BnB	4	1.1		
Camping	6	1.6		
Guesthouse	15	4.0		
Hostel	1	0.3		
Hotel	12	3.2		

Lodge	7	1.9	
Resort	2	0.5	
Self-catering apartment	5	1.3	
Visiting Friends & Relatives	3	0.8	
	GANSBAAI (n=57)		
3* accommodation	4	1.1	
3* hotel	1	0.3	
Airbnb	3	0.8	
Backpackers	5	1.3	
BnB	6	1.6	
Cottage	1	0.3	
Guesthouse	21	5.6	
Hostel	1	0.3	
Hotel	2	0.5	
House	5	1.3	
Lodge	1	0.3	
Self-catering apartment	2	0.6	
Visiting Friends & Relatives	5	1.4	
KLEINMOND (n=1)			
Guesthouse	1	0.3	
STANFORD (n=4)			
Cabin	1	0.3	
Guesthouse	2	0.5	
Self-catering cottage	1	0.3	
HERMANUS (n=29)			
3* hotel	1	0.3	

4* hotel	1	.3	
5* hotel	1	.3	
Backpacker	1	.3	
BnB	5	1.3	
Condo	1	.3	
Guesthouse	9	2.4	
Hostel	1	.3	
Hotel	4	1.1	
Various types	1	.3	
Visiting Friends & Relatives	4	1.1	
OTHER NEARBY TOWNS (n=8)			
3* hotel	2	.5	
BnB	1	.3	
Guesthouse	2	.5	
Hotel	1	.3	
Lodge	1	.3	
Various	1	.3	
отні	ER AREAS IN WESTERN CAPE (n:	=250)	
3* hotel	19	5.0	
3* hotel and 4* hotel	1	.3	
3* hotel, 4* hotel and Airbnb	1	.3	
4* hotel	33	8.7	
5* hotel	18	4.8	
Airbnb	17	4.5	
Airbnb, hotel and BnB	1	.3	
Backpackers	11	2.9	

Backpackers and self- catering apartment	1	0.3
BnB	35	9.3
BnB, guesthouse and lodge	1	0.3
Booking.com	1	0.3
Camping	1	0.3
Camping and BnB	1	0.3
Camping and Lodge	1	0.3
City Lodge	1	0.3
Guesthouse	44	11.6
Guesthouse and backpackers	1	0.3
Hostel	3	0.8
Hotel	19	5.0
Lodge	14	3.7
Lodge and BnB	1	0.3
Rental house	1	0.3
Resort	1	0.3
Self-catering apartment	18	4.8
Timeshare	2	0.5
Visiting Friends & Relatives	3	0.8

## 4.4.2 Spending in Gansbaai

Figure 4.22 is a reflection of spending by visitors while in Gansbaai. The majority of the spending went to activities noted as 'other' on the survey questionnaire (R3 503.88, n=67), followed by accommodation (R2 066.76, n=34) with the least being clothes and footwear (R300.00, n=3). The overall total average spent by each individual while in Gansbaai was R4 149.79 (n=144). In circumstances where visitors were not able to give a figure, visitors were asked to indicate either

'none', 'cannot recall' or 'not applicable', as demonstrated in Figure 4.23. This was expected to some extent, as visitors often do not appreciate filling in a questionnaire that will make them think much or disclose their finances. This is a further a limitation to the study as it does not really provide a true representation of spending of all visitors. Despite this, the data from the stipulated amounts is able to present a rough estimate of the spending in the area.

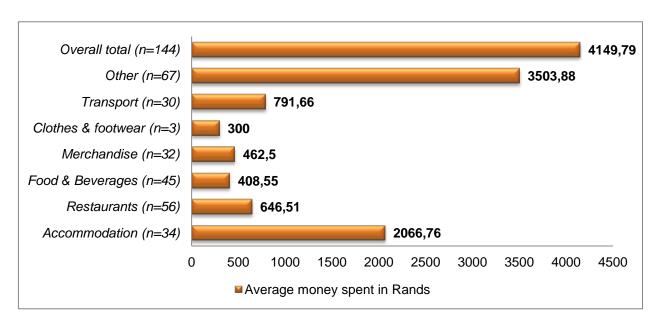


Figure 4.22: Average money spent in Gansbaai (in ZAR)

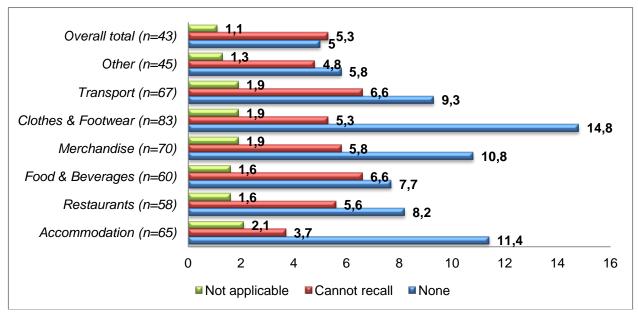


Figure 4.23: Average spending in Gansbaai (in %)

### 4.4.3 Spending in nearby towns excluding Gansbaai

Figure 4.24 is an illustration of the spending by shark cage diving visitors in other nearby towns, excluding Gansbaai. The majority of the spending was attributable to accommodation (R20 425.10, n=130) followed by 'other' (R9 622.44, n=53) and transport (R7 758.93, n=56), with the least being restaurants (R2 107.39, n=69). The overall total average per composition of group in nearby towns excluding Gansbaai inclusive of all spending items is R40 633.63 (n=208). The researcher acknowledges that respondents could have included other areas in the Western Cape such as Cape Town in these figures. This therefore is another limitation to the study as it might not represent a true reflection of the spending which occurs in towns close to Gansbaai. Figure 4.25 illustrates the responses of visitors who did not stipulate figures and chose among the given figures 'none', 'cannot recall' and 'not applicable'.

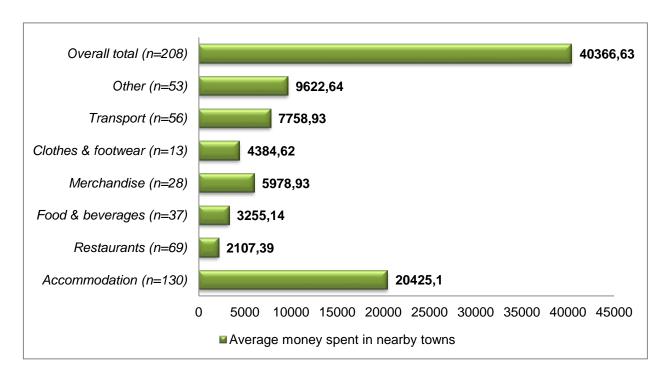


Figure 4.24: Average money spent in nearby towns excluding Gansbaai (in ZAR)

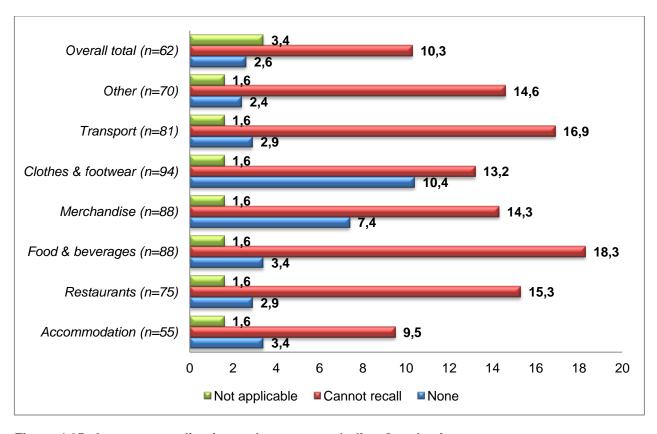


Figure 4.25: Average spending in nearby towns excluding Gansbaai

### 4.5 Shark cage diving in Gansbaai

The following section discusses the pulling power of shark cage diving to South Africa, the operator chosen, as well as the satisfaction levels of visitors participating in shark cage diving offered by their respective operators. This section also considers Gansbaai compared with other marine destinations in the world.

## 4.5.1 Pulling power of shark cage diving

Figure 4.26 represents the role played by shark cage diving in visitors' decisions to visit South Africa and this question was directed at international visitors (n=338). The majority of the respondents indicated that they had developed an interest in shark cage diving while in South Africa (35%), followed by a spontaneous decision (27%), and encouragement by friends/family (20%), with the lowest rating indicating shark cage diving as the main reason for their visit to South Africa (7%). These results project shark cage diving in Gansbaai as not a strong pulling

power to visit South Africa – an international market perspective. Despite this finding, these results also demonstrate shark cage diving as a good activity which visitors wish to participate in while in South Africa. It is important to note that this question was only posed to international visitors and not domestic visitors. However, both international and domestic visitors were asked to indicate if shark cage diving was their main reason for travelling to Gansbaai (n=378). As shown in Figure 4.27, the majority of the visitors indicated 'yes' (64%), while a considerable percentage (37%) indicated 'no'. This suggests that visitors travel to Gansbaai mainly to participate in shark cage diving, a popular activity in the area.

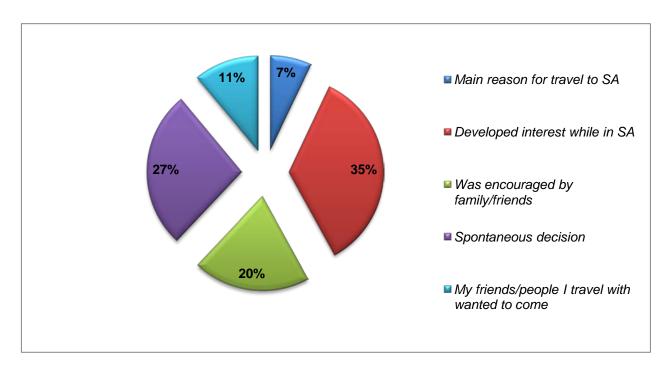


Figure 4.26: Role played by shark cage diving in decision to visit South Africa (in %, n=338)

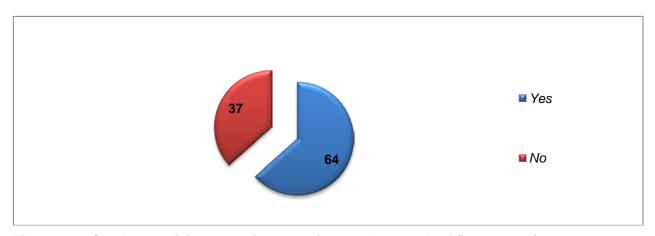


Figure 4.27: Shark cage diving the main reason for travel to Gansbaai (in %, n=378)

#### 4.5.2 Operator chosen and satisfaction levels

Figure 4.28 shows the operators chosen by each visitor who participated in the survey (n=351). Almost half of the visitors who participated in the study were from Marine Dynamics (48%). This is attributable to the fact that Marine Dynamics is the biggest and most popular operator in Gansbaai. Marine Dynamics had bigger groups per dive and had more frequent trips than other operators. They were followed by Shark Lady Adventures (25.1%) and Great White Shark Tours (13.7%). Visitors were asked to specify in the 'other' option a tour operator selected not mentioned in the survey questionnaire, and Shark Diving Unlimited was mentioned (5.8%, n=22).

Visitors were then asked to choose among the given options why they chose that specific tour operator for their shark cage diving experience (n=363). As demonstrated in Figure 4.29, the majority noted that the operator was recommended by family and friends (29.5%), followed by no specific reason (25.1%) and online reviews (15.4%). Srivastava and Sharma (2017:27) support these results by noting that word-of-mouth marketing or recommendations from friends and family is a key ingredient of interactive marketing, as consumers become the spokespersons for that particular company or destination. Visitors were asked to specify any other reason which might not have been provided in the survey questionnaire under the 'other' option and the following responses were received: company reference (1.4%, n=5), company encouraged it, been with them before, on a programme, only one reliable today, and received a complimentary ticket (0.3%, n=1) respectively. This shows that most of the operators were recommended by family and friends because of satisfactory service. Song (2016:131) revealed that the most satisfied attribute by tourists in tourist establishments is the core service which primarily involves performance of staff. Xu et al. (2019:1036) concur that employee attitude, prompt service and staff behaviour can generate a positive attitude to customers, thus influencing their satisfaction and likelihood of recommendation. This therefore emphasises the importance of satisfactory service to customers. Other visitors rely on online reviews when choosing their operator of choice, which suggests that a good online presence is of utmost importance to operators. Custódio Santos et al. (2016:664) also note that as the millennial segment is forever connected to the Internet and shares experiences in real time, this also contributes to online reviews which visitors use as part of their decision making when planning a trip. Operators thus need to take advantage of this phenomenon to improve their online presence.

Figure 4.30 presents a rating by participants with regard to the experience provided by the operator they chose (*n*=378). The majority rated the experience as excellent (67%) followed by good (30%) and very few rated the experience as fair (3%). These results suggest a strong link between the experience and good value for money. As noted in Figure 4.31, a rating by participants with regard to the value for money offered by the shark cage diving trip (*n*=378) is summarised. About half of the visitors rated the value for money aspect as excellent (55.5%), followed by good (37.3%), fair (6.4%) and a very few as poor (0.8%). Carlsen and Boksberger (2015:133) note that enhancing consumer value is increasingly becoming an important trend in tourism and hospitality as the Internet has become an important aspect of the tourism industry. Engeset and Elvekrok (2015:458) add that value for money is what consumers seek in tourism offerings, and this has a positive impact on their overall experience. These aspects therefore elicit good feedback and positive recommendations.

As shown in Figure 4.32, the respondents were then asked to indicate how likely they were to give positive referrals for shark cage diving in Gansbaai (n=378). A large majority indicated extremely likely (69.4%), followed by likely (29.2%), while a very small minority indicated not sure (1.1%). This demonstrates a positive view of shark cage diving experiences among visitors. It also suggests that visitors participating in shark cage diving in the Gansbaai region are more likely to recommend shark cage diving to their friends and family through positive referrals. This also portrays word of mouth as one of the strong marketing tools for the shark cage diving industry in Gansbaai. Del Rosso (2015) concurs that word-of-mouth referrals have always been a key point for operators, more especially in recent years as dominated by social media.

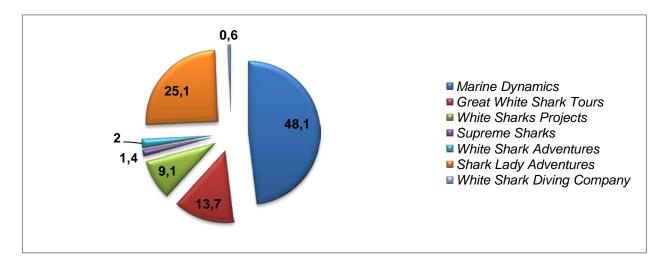


Figure 4.28: Operator chosen (in %, n=351)

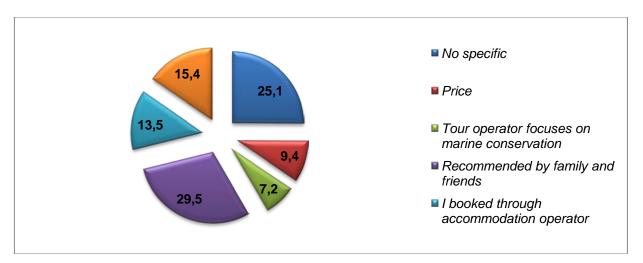


Figure 4.29: Reason for choosing operator (in %, *n*=363)

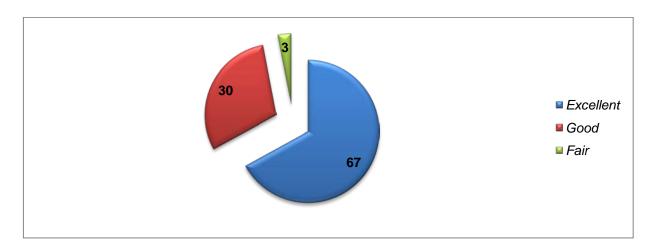


Figure 4.30: Rating of experience with tour operator (in %, n=378)

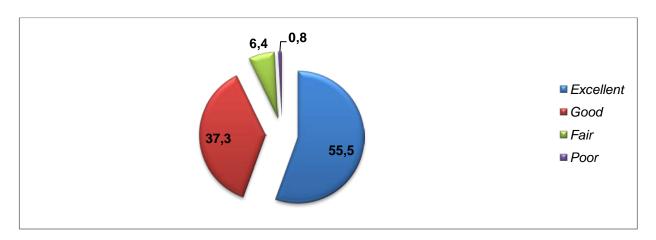


Figure 4.31: Rating of value for money by the shark cage dive trip (in %, n=378)

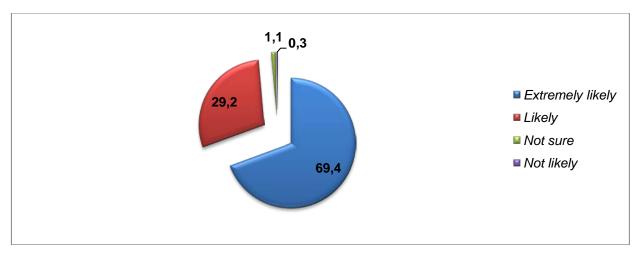


Figure 4.32: Likelihood of positive referrals for shark cage diving in Gansbaai (in %, n=378)

### 4.5.3 Gansbaai compared with other marine destinations

Figure 4.33 demonstrates other activities besides shark cage diving visitors intended to participate in during their visit to Gansbaai and neighbouring towns; multiple responses were permitted (*n*=378). The majority showed interest in adventure (49.2%), followed by visiting natural attractions (22.5%), and night life (19.6%). This demonstrates that visitors were primarily interested in the adventure element when visiting this particular region. The Overstrand Municipality (2018:12) supports these results as it notes that major strengths of the Overstrand region are outdoor and adventure-based activities such as shark cage diving. The Overstrand region covers the towns of Kleinmond, Hermanus, Stanford, and Gansbaai (Overstrand Municipality, 2018:8)

Visitors were then asked to rate Gansbaai, comparing it with other marine destinations in respect of marine activities (*n*=367). As demonstrated in Figure 4.34, the majority noted somewhat the same (31.6%) followed by cannot compare (28.3%), a little better (23.7%) and much better (13.4%). Very few noted a little worse (2.7%) and much worse (0.3%). This presents Gansbaai as a good competitor in the global marine environment arena for international markets in CMT, as visitors rated it positively among other marine destinations visited globally or their countries of origin.

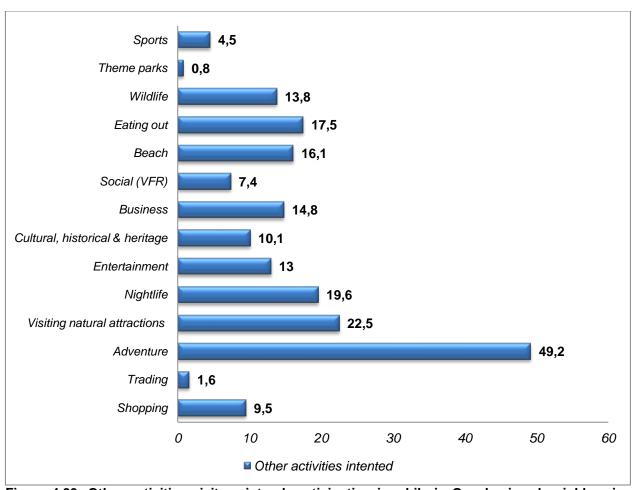


Figure 4.33: Other activities visitors intend participating in while in Gansbaai and neighbouring towns (in %, n=378)

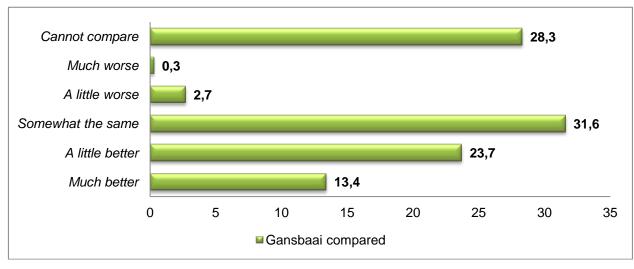


Figure 4.34: Gansbaai compared with other marine destinations (in %, n=367)

Table 4.4 indicates the countries which visitors regard as those offering the best marine experience. The three leading countries were Australia (16.7%), followed by South Africa (15.9%) and New Zealand (6.1%). This is unsurprising, as Australia is well known for its spectacular marine activities and strong tourism background. The World Economic Forum (2017) ranked Australia as seventh on the global competitiveness scale for travel and tourism in 2017. This again justifies South Africa as a key player in the global market for marine-based tourism activities. In the same report by the World Economic Forum (2017), South Africa is ranked number 53.

Table 4.4: Countries offering the best marine experience (in %, n=378)

COUNTRY	FREQUENCY	PERCENT
Australia	63	16.7
Belize	1	.3
Brazil	1	.3
Canada	4	1.1
Caribbean	2	.5
Chile	2	.5
Costa Rica	1	.3
Dubai	1	.3
Ecuador	1	.3
Egypt	1	.3
Fiji	13	3.4
Fiji Island	1	.3
Florida	1	.3
India	1	.3
Indonesia	3	.8
Madagascar	4	1.1
Malaysia	1	.3

Maldives	2	.5
Mauritius	3	.8
Mexico	3	.8
New Zealand	23	6.1
Norway	1	.3
Oman	1	.3
Philippines	2	.6
Polynesia	1	.3
Portugal	1	.3
Qatar	1	.3
Singapore	1	.3
South Africa	60	15.9
Southeast Asia	1	.3
Spain	2	.5
Thailand	4	1.1
The Bahamas	1	.3
USA	23	6.1

# 4.6 Summary

This chapter presented the findings drawn from the survey questionnaires distributed to visitors. A clear interpretation of the findings was given as a precursor to the conclusions and recommendations of the study. The next chapter provides concluding remarks to the study as well as determining whether the objectives of the study were met. It also provides recommendations, conclusions and implications for those stakeholders directly and indirectly involved in the study. This is crucial to the development of a more conducive environment for CMT.

### **CHAPTER FIVE**

### **CONCLUSIONS AND RECOMMENDATIONS**

### 5.1 Introduction

The current study determined the contribution of shark cage diving to coastal economies and followed a case study approach of a coastal town (Gansbaai) in the Western Cape, South Africa. As mentioned previously in this study, there is limited literature available which quantifies the contribution of CMT in South Africa. This study therefore serves to provide literature that gives an indication of the value of marine-based tourism activities in South Africa.

The recommendations and conclusions of this research constitute the core of this chapter. It is based on the results presented in Chapter 4 and by examining whether the research objectives of the study were met. The limitations encountered during the implementation of the study are also presented. Future research that could emanate from this study is also mapped.

### 5.2 Conclusions of the research

The objectives of the study from which the results were drawn are as follows:

- To identify the profile of visitors participating in shark cage diving in Gansbaai.
- To determine the expenditure patterns of visitors participating in shark cage diving in Gansbaai.
- To establish the role played by shark cage diving in tourists' decisions to visit South Africa.

Based on the above objectives, the conclusions and recommendations of the study are given in the following subsections.

### 5.2.1 Conclusions based on Objective 1

The objective seeking to identify the profile of visitors participating in shark cage diving in Gasbaai has been met. The study established that a large majority of visitors were international visitors and that the activity had minimal appeal to the domestic market. The majority of the visitors came from English-speaking countries such as the USA, UK and Australia and also Germany which is not primarily English, thus limiting language barriers. The majority of visitors came from Europe and North America. Of the domestic visitors, about half came from Gauteng. This is not surprising, owing to the attraction of the sea, as Gauteng is a landlocked province. The majority were holiday visitors who mostly travelled in groups of family and friends, while a significant number also travelled alone. This strongly suggests that Gansbaai is highly regarded as a holiday destination and mostly attracts first-time visitors. Furthermore, a large majority of the visitors were day visitors to the Gansbaai area, which demonstrates a lack of variety of offerings in the area to encourage visitors to stay overnight. Most visitors travelled in groups, closely followed by self-drive visitors, presenting a split between adventurous visitors and visitors who prefer organised and planned trips.

In terms of the demographic profile, most shark cage divers were between the age of 21 to 40 years, and well educated, as the majority held a university degree. This demonstrates a good level of understanding of and meaningful contribution to the study by the visitors. There was a minor difference in numbers when comparing male and female visitors, with men dominant. The profile presents women as increasingly taking part in activities previously male dominated. This is a positive indication for the shark cage diving industry as it signifies steady growth. This study also revealed these types of visitors who participate in shark cage diving are willing to pay a premium price for the experience and are relatively well paid. The majority are employed full time and earn between R40 001 and R50 000 a month.

In further understanding the profile of visitors, it was necessary to determine their interest in marine-based activities other than shark cage diving in Gansbaai. The results revealed a strong interest in shark cage diving, followed by whale watching. Other activities, which included snorkelling, surfing and scuba diving, also appeared as marine activities which appealed to visitors. This shows that visitors who participate in shark cage diving have a general interest in marine based activities. Just over half of the respondents were contributing to a marine-based activity for the first time, which represents a new interest among visitors in CMT. Of those who

were participating in CMT for the first time, the majority showed interest in further pursuing whale watching, dolphin watching and turtle projects in the future. This is therefore a good indication of growth in CMT, as interest in marine-based activities is growing. As whale watching is also offered in a nearby town (Hermanus), this potentially may be influenced by a visit to Gansbaai for shark cage diving. Of those who indicated that they had participated in marine-based activities prior to shark cage diving in Gansbaai, whale watching and dolphin watching were listed, with shark cage diving as the main activity. This therefore presents a relationship between marine-based activities and how they potentially influence a visitor to participate in other marine-based activities. It clearly appears that the study identified the profile of shark cage divers in the Gansbaai region and their attributes. Therefore, this above objective has been met.

### 5.2.2 Conclusions based on Objective 2

In this objective, the study attempted to determine the expenditure patterns of visitors participating in Gansbaai shark cage diving by noting which categories they spend their money on and where. In evaluating this objective, it is important to indicate that the profile of visitors (Objective 1) has a link with the expenditure patterns (Objective 2).

Drawing from Objective 1, the majority of the visitors were day visitors and did not indulge in much spending while in Gansbaai. It was highly evident that the Gansbaai region is heavily dependent on shark cage diving as there is a lack of diversified offerings in the region to encourage overnight visits. Overnight visits will yield more expenditure. In terms of accommodation and number of nights, just over half of the respondents reflected paying for one individual (referring to themselves), followed by a significant proportion who paid for two. The average nights spent in Gansbaai were 3.7 nights (n=57). Visitors who took part in shark cage diving in Gansbaai also slept in nearby towns; thus these towns benefited from shark cage diving visitors. The popular town was Hermanus, with an average of 2.9 nights. This is no surprise as Hermanus is well known for its globally recognised whale watching offering. The majority (n=250) of the visitors had reserved accommodation in other areas in the Western Cape, with an average of 8.7 nights. This again puts emphasis of Gansbaai as a day activity destination rather than an overnight destination.

While in Gansbaai, visitors spend most of their money on the shark cage diving trip, followed by accommodation, with little spent on clothes and footwear. In an attempt to establish the amount spent in rands, most respondents selected none, as they were given an option of either selecting not applicable, cannot recall or none of each of the spending items stipulated. This implies that most visitors do not spend much while in Gansbaai, other than on the shark cage diving trip. This is therefore important for service providers, as they should implement more innovative strategies in their marketing efforts, which are inclusive of other products in Gansbaai.

Failure to quantify in rands the expenditure patterns associated with this event reflects the objective as partly achieved, as other components related to expenditure patterns have been explained.

### 5.2.3 Conclusions based on Objective 3

The third objective sought to determine the role played by shark cage diving in tourists' decisions to visit South Africa. This question was directed to international visitors only, and domestic visitors were asked to ignore it. As Gansbaai is regarded as one of the best places in the world for shark cage diving, the objective was to determine the pulling power of this activity to South Africa from the international community. From the results it emerged that most international visitors developed an interest in shark cage diving while in South Africa. Only a few visited South Africa because of shark cage diving. From this it can be deduced that shark cage diving does not have a strong attraction on its own to the international market, but rather forms part of other interesting activities that visitors want to participate in while in the country.

Despite the outcome of this objective presented above, both international and domestic visitors mainly visited Gansbaai for shark cage diving – a popular activity in the area. This also suggests that shark cage diving is the main activity on which the economy of Gansbaai depends, thus raising concerns of the suitability of the activity, as well as a lack of diversity of tourism offerings in the area.

In meeting this objective, customer satisfaction is perceived as key to influencing tourists' decisions to visit a destination, hence results related to customer satisfaction are integrated when assessing the attainment of this objective. This was evaluated against the service

customers received from their shark cage diving tour operators in booking the tour, value for money offered by the cage dive trip, visitors' likelihood of positive referrals for shark cage diving in Gansbaai, and their comparison of Gansbaai's marine activities with those of other marine destinations.

Emanating from the results, the service received by visitors from their shark cage diving operators was rated mostly as excellent, suggesting that visitors generally had a great experience, as they also attested that the shark cage diving experience was good value for money. The majority of visitors agreed that it was highly likely that they would give positive referrals for shark cage diving in Gansbaai. When compared with other marine destinations globally, Gansbaai was rated similar, while some visitors could not make comparisons. Some visitors noted that Gansbaai was much better, which gives a good indication that Gansbaai is rated well when compared with other marine destinations which visitors have experienced. The country rated the top marine destination was Australia, followed by South Africa. This is no surprise, as Australia is also known for offering great shark cage diving experiences and great marine life.

The majority of visitors chose the operator Marine Dynamics to arrange activities related to the shark cage diving experience. This is because Marine Dynamics is the biggest operator in the area and mainly accommodates larger groups. Marine Dynamics also boats a vessel specifically designed for shark cage diving, which visitors find more appealing. Marine Dynamics also has various research projects as well as an international volunteer programme that attracts volunteers from all over the world who are interested in marine-based studies. This therefore puts Marine Dynamics on a global platform, making it more accessible to potential clients around the world. Following Marine Dynamics was Shark Lady Adventures and Great White Shark Tours. When asked the reason for choosing the tour operator, the majority indicated that the tour operator was recommended by family and friends, followed by no specific reason. A portion depended on online reviews to make their decision, while a few selected the operator because of the price. This suggests that tour operators mainly receive clients through referrals or word-of-mouth marketing. This therefore implies that satisfaction of visitors is of utmost importance to tour operators as satisfied guests are more likely to pass on positive referrals to family and friends. Seven shark cage diving operators out of nine participated in the study in the region.

#### 5.3 Recommendations and implications

The recommendations presented in this chapter are based on the research findings presented in the previous chapter. The recommendations highlight the implications for service providers on how best to promote more overnight visits to the region and to create a more diversified offering of activities in Gansbaai. The results will assist tour operators to have an indication of how their visitors perceive them, and to find ways to optimise visitor experiences and to be more strategic in their marketing efforts. A collaborative effort is pivotal for all stakeholders directly and indirectly affected in making this activity not only an income-generating opportunity for the region but also ensuring that it contribute towards the development of a sustainable economy and sustainable communities.

The following section presents recommendations for tour operators and the tourism office of the Overstrand Municipality.

### 5.3.1 Continuous profiling of shark cage diving visitors to Gansbaai

The continuous profiling of shark cage diving visitors to Gansbaai is important as it will give a better understanding of the type of visitors that participate in shark cage diving. This agrees with the views of Moscardo and Saltzer (2004:167), who state that it is important to be well informed about the type of visitors catered for in order to design offerings which will meet their expectations. This will also give operators an opportunity to improve their delivery as they will have a better understanding of their market and the experiences desired.

#### 5.3.2 Marketing of other activities in Gansbaai

The main tourist activity marketed in Gansbaai is shark cage diving, as it is the main drawing card to the region; however other areas seem to be neglected. According to SA-Venues (2018), Gansbaai is regarded as the shark capital of the world where great white shark populations are found, and this is a major drawing card for Gansbaai. This unique factor is why strong marketing efforts are invested in shark cage diving. As shark cage diving is the primary attraction in the area, integration with secondary attractions is key to maximising economic potential in the area. For example, Gansbaai also has hiking trails, which seem less popular. The hiking trails also

present an opportunity for people to stay in Gansbaai overnight. An audit of tourism resources is pivotal as this will inform an effective marketing strategy in the area.

## 5.3.3 Promoting of package tours

The promotion of package tours inclusive of other activities in the area will assist in marketing other activities in the Gansbaai region. Such package tours could be advertised at promotional rates to establish a market. Package tours will also assist in promoting nearby towns, thus broadening the economic spend in the region. Picazo and Moreno-Gil (2018:18) note that in order for tour operators to adapt to new changes, part of the process is to design their promotional and pricing strategies to boost their profit, and package tours are a priority. TripAdvisor (2018) concurs that package tours have the ability to boost profit margins as well as increase occupancy during off-peak seasons. This further supports the notion that package tours may lead to increased sales.

#### 5.3.4 Discounted rates for domestic travellers

The results revealed an overwhelming majority of shark cage divers to be international, with little participation by domestic visitors. Although this is positive (shark cage diving's attracting more international tourists), more needs to be done to attract domestic visitors. A strong domestic market is important for sustainability as the international market is highly vulnerable to external factors. Lack of participation by the domestic market may be attributed to the price, which domestic visitors find too high. According to a study conducted in Alexandra Township (Gauteng) regarding lack of participation in domestic tourism by the youth, the major contributing factor was unemployment and poverty (Dzikiti & Leonard, 2016:6). Therefore, as unemployment is a major factor, it restricts travel to activities regarded as expensive. International visitors are in a better position to afford shark cage diving owing to their strong exchange rate with the South African rand (ZAR), whereas domestic visitors are forced to pay the same amount. Introducing domestic traveller rates could assist in increasing domestic visitor participation in shark cage diving activities.

## 5.3.5 CMT development framework for the Overstrand Municipality

The development of a framework aimed at developing coastal and marine-based activities in the Overstrand Municipality region will assist in product diversification in the Gansbaai region and nearby towns. This will also assist in creating more overnight visit opportunities for Gansbaai and nearby towns, which is currently low. As reflected in the results, the majority of visitors were day visitors to Gansbaai and slept in other areas of the Western Cape, such as Cape Town. The development of this framework will also assist other CMT areas around South Africa.

#### 5.3.6 Local involvement and education

Creating awareness and educating the local community about tourism could assist in building capacity for tourism entrepreneurship and participation. When the locals are made aware of tourism opportunities in their area, a stronger tourism-active community could emerge.

In educating local communities about tourism and the potential opportunities provided by tourism, a stronger tourism economy can be developed. The local communities are only employed in the industry and are largely unaware of entrepreneurship. According to Lloyd (2018:21), regular tourism awareness programmes and working in collaboration with all spheres of government are beneficial to a tourist friendly culture and should improve local community participation in the Overstrand Municipality region. Education will therefore fill this gap and encourage entrepreneurship in the region.

#### 5.3.7 Innovation to ensure sustainability

As mentioned in Chapter 2, one of the challenges facing the tourism industry is that nature cannot be controlled. During the data-collection period of the study there was a period of three weeks when no sharks were spotted, thus leaving visitors highly disappointed as trips were cancelled. This cost the shark cage diving industry in Gansbaai millions of rands. This therefore forces shark cage diving operators in Gansbaai to be innovative in order to continue operating during times when there are no sharks. Shark cage diving operators can become innovative by offering a variety of activities alongside shark cage diving, which can assist in sustaining themselves and the tourism industry in the area.

Lack of innovation also affects staff, as workers are compelled to stay home as no work can continue without sharks. As there is no work without sharks, they do not get paid during such periods, thus impacting negatively on the wellbeing of the workforce in the shark cage diving industry in the Gansbaai region.

#### 5.4 Recommendations for further research

The current study only focused on the visitors to try to understand the economic contribution of shark cage diving in the region through visitor expenditure surveys. Future studies could include other stakeholders which could assist in obtaining a more holistic estimation. These are:

- shark cage diving tour operators in Gansbaai
- staff
- volunteers
- the local community

Including these stakeholders in future studies will assist in achieving a more holistic view of the real contribution of shark cage diving tourism in the Gansbaai region.

### 5.5 Limitations of the study

The limitations of the study are the characteristics of the methodology or design which had an impact on the interpretation of the results from the research (Price & Murnan, 2004:66). The authors add that it is better to identify and acknowledge the limitations of the research and report accordingly, thus providing an opportunity for further research. According to Beiske (2002:4), questionnaires can also present certain limitations to a research investigation:

- Questionnaires not completely filled in or filled in incorrectly
- Questionnaires do not present the researcher with an opportunity to elicit clarification
- Closed-ended questionnaires could lead to bias or lead the respondents to answer in a quided manner and fail to understand the underlying reasons for the outcome

The researcher acknowledges the above-mentioned limitations as present in the study. Babbie and Mouton (2001:520) argue that no matter how well a research study is conducted, every study has limitations. Other limitations of the current study included:

### • Time constraints

The researcher had limited time to carry out the study as certain conditions dictated the execution of the fieldwork. This involved going to the study area on a number of occasions with no shark cage diving activity taking place.

### Budget constraints

The researcher had a limited budget to carry out the research. This therefore made it difficult to include other stakeholders in the study.

Domestic visitors mostly received in the December period

This is acknowledged as a limitation as it would present skewed results for December. In addition, the data-collection period was between January and April 2017, thus omitting December visitors.

 The research is limited to spending patterns of the visitors as an indication of economic impact and excludes international volunteers.

Volunteers also spend money in Gansbaai, and excluding them could result in data not recorded, which would influence the results. Volunteers who reside in Gansbaai and work in the shark cage diving industry are mostly from other countries and therefore bring in international currencies. The volunteers also reside for long periods and therefore contribute to the economy of Gansbaai

Another limitation which emanated from the study was that a portion of the visitors did not complete the expenditure section of the survey, thus making it difficult to provide a true representation of the economic contribution made by tourists to the Gansbaai region. The surveys that were completed were able to give an indication of the type of spending in Gansbaai

and where visitors spend their money when in Gansbaai. The study also acknowledges that the figures stipulated by the visitors in their overall spending in Gansbaai could include other areas in the Western Cape such as Cape Town, further making it difficult to provide a true representation of the economic contribution of shark cage diving in Gansbaai.

### 5.6 Conclusion of study

The study determined the profile of visitors who engage in shark cage diving in Gansbaai, the expenditure patterns related to shark cage diving to the Gansbaai economy, as well as the pulling power of shark cage diving to South Africa from international visitors. The overall outcome of the results demonstrates that interest in marine-based activities is increasing, and the desire to know more about nature-based activities is growing. The study also identified that the main market participating in shark cage diving comprises international visitors, of whom the majority are day visitors to Gansbaai, thus restricting spending in the area. The study also revealed that owing to few overnight visitors to Gansbaai, the economy is heavily dependent on the shark cage diving trip per visitor, as visitors do not spend much while in Gansbaai.

The study also acknowledged that shark cage diving is not a strong pulling factor to South Africa from international visitors and that tourists develop an interest in the activity while in South Africa. The study recommends that the development of a more diverse offering in Gansbaai will contribute to greater economic spend in the area. Package tours at discounted prices for domestic visitors could assist in promoting other activities in Gansbaai and increase domestic participation in such activities.

A collaborative effort between and among stakeholders, inclusive of those directly and indirectly affected by shark cage diving, is key. An evaluation of current and future CMT plans is pivotal to the sustainability of this important sector of the tourism industry.

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# **APPENDICES**

# **APPENDIX A: ETHICS APPROVAL**



# P.O. Box 1906 • Bellville 7535 South Africa •Tel: +27 21 4603534 • Email: majamanin@cput.ac.za Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	Faculty:	BUSINESS
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At a meeting of the Research Ethics Committee on 21 November 2016, Ethics Approval

was granted Nolwazi Mabaleka (211267104) research activities

Related to the MTech/DTech: Master of Technology Tourism and Hospitality at the Cape Peninsula

**University of Technology** 

Title of dissertation/thesis:

THE CONTRIBUTION OF SHARK CAGE DIVING TOURISM TO COASTAL ECONOMIES: A CASE STUDY OF A COASTAL TOWN IN THE WESTERN CAPE, SOUTH AFRICA

Supervisor: Prof. Kamilla Swart

**Comments:** 

**Decision: APPROVED** 

Signed: Chairperson: Research Ethics Committee

**21 NOVEMBER 2016** 

Date

# **APPENDIX B: APPROVAL LETTER 1**







Marine Dynamics and Dyer Island Cruises
PO Box 78
Gansbaai
Western Cape
7220
South Africa

August 2016

To whom it may concern

## **RE. LETTER OF ACKNOWLEDGEMENT**

As Chief Executive Officer of Marine Dynamics Tours, Dyer Island Cruises and International Marine Volunteers, I hereby confirm that Miss Nolwazi Mabaleka, a BTech Tourism Management graduate at the Cape Peninsula University of Technology, has the approval to conduct research at our premises.

The survey is for her MTech thesis in marine tourism, specifically focusing on the visitor profile expenditure patterns of visitors undertaking shark cage diving.

Miss Mabaleka has confirmed that the information she obtains while conducting her survey is for academic purposes only, and will also assist in a greater understanding of the economic impact of shark cage diving in the Gansbaai area.

Marine Dynamics wishes her all the best in her academic studies.

Yours sincerely,

Wilfred Chivell

CEO: Marine Dynamics Tours / Dyer Island Cruises / International Marine Volunteers

Founder: Dyer Island Conservation Trust / African Penguin and Seabird Sanctuary



Post: PO Box 78, Gansbaai, 7220, South Africa

# **APPENDIX C: APPROVAL LETTER 2**



4<sup>th</sup> October 2016

Dear Nolwazi Mabaleka

The Great White Shark Protection Foundation members would like to thank you for visiting us and presenting to us, your request for the help and statistics you require for your proposal.

All members have shown a keen interest to help you in any way they can.

The minutes of that meeting will follow shortly.

Regards

Kim Sharklady MacLean

Chairperson GWSPF

# **APPENDIX D: SURVEY QUESTIONNAIRE**



Date	
Fieldworker	
Questionnaire no	

This research aims to determine the profile of visitors participating in shark cage diving in Gansbaai as well as their expenditure patterns in order to determine the economic impact of shark cage diving. Your responses will provide a greater understanding of the contribution of shark cage diving to the Gansbaai economy and introduce new research which has not been conducted in the area.

### **A. PROFILE OF VISITORS**

1. Are you an	overnight or o	day visitor	to Gansl	baai?										
Overnight visi	tor	C	ay visito	r										
2. Where are	you from?													
Outside of South Africa	State countr	y of origin	:											
South Africa	Eastern Cape	Free Sta	ite G	auteng	KwaZulu Natal	<b>I</b> -	Limpor	00	Mpuma	langa	Northern Cape	1	North-West	Western Cape
3. How would	you describe	the comp	osition o	f your group	?									
Alone	Friends		Family	/	Friends	& famil	•	usiness sociates	S	Tour	group		Other (specify)	
4. Purpose of	travel to Gans	sbaai												
Holiday	Visit	family & f	riends	Incentive	es	Busine	ess		Medic	al		Othe	r (specify)	
5. Including co	urrent trip, ho	w many ti	mes have	e you visited	l Gansbaai	i before	e?							
1		2		3	3			4				More	e (specify)	
6. How did yo	u travel to Ga	nsbaai?												
Guided tour			Hir	red car		I 1	Puhlic +	ranchor	+			Otho	r (snecify)	

#### B. ADVENTURE TOURISM AND SHARK CAGE DIVING TOURISM

7. What type of r	marine-based adventure	tourism activities	anneal to you?	(Multiple responses)
/ · vviiat type oi i	marmic-basea auventare	. Loui isiii activitics	appeal to you:	(IVIGICIPIC ICSPOISCS)

Shark cage diving	Whale watching	Snorkelling	Surfing	Scuba	diving	Other (specify)
8. Is this the first tim	e you joined a "marine	wildlife tour" in any	destination in the world.	Yes	No	]
		_	_			_
	•	would you be interest	ted in joining any other ma	rine wildlif	e tours in the	- future? (Multiple

#### 8.2 If you select no, which kinds of tours have you experienced before? (Multiple responses permitted)

	, , , , , , , , , , , , , , , , , , , ,	to the second se		
Shark cage diving	Dolphin watching tour	Whale watching tour	Turtle project	Other (specify)

### 9. Is this the first time you joined a shark cage diving tour in Gansbaai?

Yes	No
-----	----

### 10. Indicate the extent to which you agree or disagree with each STATEMENT with an "X" in the right-hand column

KEY: 1 – strongly disagree 2 – disagree 3 – neutral 4 – agree 5 – strongly agree

STATEMENT	1	2	3	4	5
I take part in shark cage diving					
to learn more about sharks					
to learn more about the marine environment of the area					
to experience the great white shark in its natural habitat					
to see an endangered species					
because I have an interest in sharks					
for the adrenalin rush					
because shark cage diving is on my bucket list					
because shark cage diving is affordable					
to overcome fear					
for a new wildlife experience					
because I am crazy about shark cage diving					
to get away from my routine and try something new					

### 11. What do you think are the advantages of this site (Gansbaai) as a shark cage diving destination?

Weather	Value for	Accessible	Trained staff	Good	Good	Natural appeal	Other (specify)
	money			accommodation	restaurants		

Crime	Overcrov	vding Poor	service qua	ality	Poor infrastructure	Pollution	Oth	ner (specify)
12 What do yo	م بامناه	vo tha massible threat	a ta abauli	aaaa diiriba t	havriana 2 /84viltinla va		٦١	
Too expensive	ou think a	re the possible threat Sharks are being				cludes unethical p		Other (specify)
100 expensive		Silarks are being	Killeu	includes u	iisale practices   III	ciudes unetifical p	actices	Other (specify)
14. What other	r tourism	products are you fam	iliar with t	hat complen	nent the shark cage (	diving experience i	n Gansbaa	ai?
Kayaking & can		Hiking and camping		watching	Walker Bay	African Penguir		Other (specify)
, 3		0 1 0		· ·	Nature Reserve	Bird Sanctuary		
C. EXPENDITU	IRE PATT	ERNS						
15 Including vo	ourself h	ow many people are y	vou naving	for in vour t	travel groun?			
1		2	3	, ioi iii youi i	4	5		Other (specify)
						1 -		conce (opening)
	-	or, how many nights d hat type of accommo	-	-		•	45 17 6	as ourse areas in the
Ar	rea where	e nights spent		Type of acc	commodation (e.g. 3	* hotel, guesthous	e/B&B)	Number of nights
South Africa							-,	realiser of highes
Nearby towns:							-,	Trainiber of Highes
ivearby towns.		ansbaai					-,	Trumber of mights
ivearby towns.	Kle	einmond						Trumber of mights
ivearby towns.	Kle							Trumber of mights
ivearby towns.	Kle Sta He	einmond anford ermanus						Trumber or mights
,	Kle Sta He Ot	einmond anford ermanus :her (specify)						Trumber of mights
Other areas in t	Kle Sta He Ot	einmond anford ermanus	wn)					
,	Kle Sta He Ot	einmond anford ermanus :her (specify)	wn)					
Other areas in t	St: He Ot	einmond anford ermanus :her (specify)	·	ring the entir	re period of your stay	y in Gansbaai?		
Other areas in t	St: He Ot	einmond anford ermanus :her (specify) ern Cape (e.g. Cape To	·	ring the entir	re period of your stay	y in Gansbaai?		None (O)
Other areas in t TOTAL  17. Approximate	St: He Ot	einmond anford ermanus :her (specify) ern Cape (e.g. Cape To	·	ing the entir	re period of your stay			
Other areas in t TOTAL  17. Approximate	St: He Ot	einmond anford ermanus :her (specify) ern Cape (e.g. Cape To	·	ing the entir	re period of your stay			None (O)
Other areas in total  TOTAL  17. Approximate	St: He Ot the Weste	einmond anford ermanus :her (specify) ern Cape (e.g. Cape To	·	ring the entir	re period of your stay			None (O) Cannot recall (X)
Other areas in to TOTAL  17. Approximation	St: He Ot the Weste	einmond anford ermanus :her (specify) ern Cape (e.g. Cape To	·	ing the entir	re period of your stay			None (O) Cannot recall (X)

Merchandise

Clothes and footwear

Transport										
Other activities										
Overall total (in	nportant figure)									
18. Approximat	ely how much mo	ney will you	spend during	the entire p	period of	vour stav	in nearby tow	ns excluding Ga	nsbaai?	
Item	,						Amount in ZA		None (	(O) t recall (X) pplicable (NA)
Accommodation	n									<del>, , , , , , , , , , , , , , , , , , , </del>
Restaurants										
Food and bever	ages									
Merchandise										
Clothes and foo	twear									
Transport										
Other activities										
Overall total (in	nportant figure)									
19. For internat	cional visitors, who	at role did sha	_					ds/people I trave	1 0	ther (specify)
	cional visitors, wh	at role did sha I interest	wark cage divir Was encou friends/fan	raged by		aneous	My frien	ds/people I trave nted to come	ı O	ther (specify)
19. For internat Main reason for travel to SA  20. Is shark cage Yes	Developed while in SA  e diving the main	at role did sha d interest A reason for yo	Was encou friends/fan	raged by nily	Spont	aneous	My frien		·I 0	ther (specify)
19. For internat Main reason for travel to SA  20. Is shark cage Yes  21. Which tour	Developed while in SA  e diving the main  No  operator have yo	reason for you chosen?	Was encou friends/fan ur visit to Ga	raged by nily insbaai?	Spont decisi	aneous on	My frien with war	nted to come		
19. For internat Main reason for travel to SA  20. Is shark cage Yes  21. Which tour Marine	Developed while in SA  e diving the main  No  operator have you  Great White	reason for you chosen? White Sha	Was encou friends/fam ur visit to Ga	raged by nily nnsbaai? eme	Spont decisi	aneous on hark	My frien with war	white Shar	k	ther (specify) Other (specify)
19. For internat Main reason for travel to SA  20. Is shark cage Yes  21. Which tour Marine	Developed while in SA  e diving the main  No  operator have yo	reason for you chosen?	Was encou friends/fan ur visit to Ga	raged by nily nnsbaai? eme	Spont decisi	aneous on hark	My frien with war	nted to come	k	
19. For internat Main reason for travel to SA  20. Is shark cage Yes  21. Which tour Marine Dynamics	Developed while in SA  e diving the main  No  operator have you  Great White Shark Tours	reason for you chosen? White Sha	Was encou friends/fan ur visit to Ga rk Supr Shar	raged by nily nnsbaai? eme	Spont decisi	aneous on hark	My frien with war	white Shar	k	
19. For internat Main reason for travel to SA  20. Is shark cage Yes  21. Which tour Marine Dynamics	Developed while in SA  e diving the main  No  operator have you  Great White	reason for you chosen? White Sha Projects	Was encou friends/fan ur visit to Ga rk Supr Shar	raged by nily nnsbaai? eme	Spont decisi White S Advent	caneous on hark ures	My frien with war	white Shar	k pany	

operator

Poor

Not sure

conservation

Good

Excellent

23. How would you rate your experience with the shark cage diving operator in booking for the tour?

Fair

Excellent	Good		Fair		Poor		No	t sure	
25. How likely a	re you to give positi	ve referrals for sha	ark cage divin	g in Gansbaai?					
Extremely likely		Likely		Not likely			Not sure		
	<u>.</u>								
	rk cage diving what a		•	u intend partici	pating in/h	ave participa	ated in during	your visit to Ga	nsbaai
Shopping	Trading	Adventure		ng natural	Nightlife	Er	itertainment	Cultural, h	istorical &
•				ctions	· ·			heritage	
Business	Social (VFR)	Beach	Eating	g out	Wildlife	Th	eme parks	Sports	
Other (specify)			<u> </u>					<u>-</u>	
•	vith other marine de					1		1	
Much better	A little better	Somewhat	t the same	A little wo	orse	Much wo	rse	Cannot compa	are
zo. III your opiii	ion, which country o	offers the best man	rine experiend	ce?					
D. DEMOGRAP	•	offers the best mai	·	ce?					
D. DEMOGRAP 29. Gender	•	2. Marital Stat	·	Married		Oth	er (specify)		
D. DEMOGRAP  29. Gender  Male	PHICS		·			Oth	er (specify)		
D. DEMOGRAP  29. Gender  Male  30. Age	PHICS Female	2. Marital Stat	tus		51–6		er (specify)	>70 (speci	
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci	PHICS Female fy) 21–30	2. Marital Stat Single	tus 40	Married 41–50	I	60	61–70	>70 (speci	• •
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci	PHICS  Female  fy) 21–30  r monthly net incom	2. Marital Stat Single 31–4 se (after deduction	tus  40  n of taxes) or c	Married  41–50  can you provide	e us with a	00	61–70 ome range?		\$€£
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci	Female  fy)  21–30  r monthly net incom  R8001 –	2. Marital Stat Single 31–4 se (after deduction R10 001 –	40 n of taxes) or o	Married  41–50  can you provide  R30 000	e us with a	monthly inco	61–70 ome range?	>70 (specify)	\$€£
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci	PHICS  Female  fy) 21–30  r monthly net incom	2. Marital Stat Single 31–4 se (after deduction	tus  40  n of taxes) or c	Married  41–50  can you provide	e us with a	00	61–70 ome range?		\$€£
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci  31. What is your  R1 —  R8000	Female  fy)  21–30  r monthly net incom  R8001 –  R10 000	2. Marital Stat Single 31–4 se (after deduction R10 001 –	40 n of taxes) or o	Married  41–50  can you provide  R30 000	e us with a	monthly inco	61–70 ome range?		\$€£
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (specidary)  31. What is your R1 — R8000  32. Highest leve	Female  fy)  21–30  r monthly net incom  R8001 –  R10 000	2. Marital Stat Single 31–4 se (after deduction R10 001 –	40 n of taxes) or o R20 001 – R30 000	Married  41–50  can you provide  R30 000	e us with a	monthly inco R40 001 – R50 000	61–70 ome range?	50 001 (specify)	\$€£
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci  31. What is your  R1 —  R8000  32. Highest leve  Primary/second	Female  fy)  21–30  r monthly net incom  R8001 –  R10 000  el of education  ary school	2. Marital Stat Single 31–4  se (after deduction R10 001 – R20 000	40 n of taxes) or o R20 001 – R30 000	Married  41–50  can you provide  R30 000  R40 000	e us with a	monthly inco R40 001 – R50 000	61–70 ome range?>R 5	50 001 (specify)	\$€£
D. DEMOGRAP  29. Gender  Male  30. Age  <20 years (speci	Female  fy)  21–30  r monthly net incom  R8001 –  R10 000  el of education  ary school  ployment status	2. Marital Stat Single 31–4  se (after deduction R10 001 – R20 000	40 n of taxes) or o R20 001 – R30 000	Married  41–50  can you provide  R30 000  R40 000	e us with a	monthly inco R40 001 – R50 000	61–70  me range?  >R 5  ther (specify)	50 001 (specify)	• •

Should there be queries relating to the answers you have given, will you be willing to receive an email to confirm them?	Yes	No
If yes, please provide your email address		
THANK YOU FOR YOUR PARTICIPATION! For queries, contact NolwaziMabaleka (CPUT): mabaleka.nolwazi@gmail.com		