



**IMPACT OF WATER CRISIS ON THE FINANCIAL PERFORMANCE OF  
FINE DINING RESTAURANTS IN THE CAPE TOWN METROPOLE.**

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## **ABSTRACT**

The fine-dining restaurant businesses in Cape Town are heavily reliant on the influx of Tourism. However, 2017/ 2018 posed significant a challenge due to the inevitable drought that left some Cape Town businesses on the brink of shutting down. Observing five-star restaurants urging customers to use the same cutlery for all the six-course meals motivated the study.

In 2017, the water tariffs increased significantly, forcing many businesses to improve their water conservation efforts. The average bath water usage was significantly reduced to 60 litres per person. The increased water tariffs resulted in restaurants being desperate to find solutions to the problem without jeopardizing fine dining standards. This problem reduced restaurant businesses' dining capacity and eventually led to some restaurants closing down. The water crisis has compelled various businesses to devise methods to counter the problem.

The study investigated the effectiveness of measures implemented by fine dining restaurants to ensure customer satisfaction, maximize profit and sustain businesses in the long term. The study embarked further on investigating the impact of the water crisis on fine dining restaurants' financial performance in the Cape Town Metropole. The method of conducting the study was through descriptive semi-structured interviews with fine dining restaurateurs. The nature and demands of this investigation made an exploratory research design appropriate for the study. Therefore the qualitative methodology was adopted for this thesis. Central to this study is discovering new methods implemented to deal with the water crisis and how the restaurant businesses adapted to the water crisis challenges. The study participants were restaurant businesses in the Cape Town CBD, and semi-structured interviews were conducted based on the questions drafted to meet the study objectives. During the interviews, the raw data was tape-recorded and later transcribed by the researcher. Once transcription of data was complete and to ensure that no manipulation of responses from the participants, then the presentation of findings was done in a verbatim format.

The findings revealed that the challenging circumstances around the water crisis in Cape Town had compelled entrepreneurs in the hotel and restaurant businesses to appreciate the need to conserve water. The creativity and innovative strategies implemented by fine dining restaurateurs determined the business survival. The study also revealed that the water crisis hurt the financial

performance of fine dining restaurants. The perceived impression created by the media about the water crisis in Cape Town motivated visitors that usually travel to Cape Town to stay away during this period, leading to a loss for restaurants. The significant issues mentioned in the findings that affected the fine dining restaurants' performance were the money spent on buying new water-saving equipment, high water tariffs from Cape Town municipality, and lack of government assistance. The majority of the participants revealed that they started buying water and power-saving equipment due to the water crisis announcement. One of the fine-dining restaurateurs went as far as installing 60 wind energies for both his businesses in front of the Hotel Verde in Cape Town Airport and proving to be a very costly strategy. Some restaurants closed big swimming pools and only operated with the small swimming pools, closed ice machines, one coffee shop was closed temporarily, use of disposable serviettes, reduced use of ice and used ice bricks instead of ice machines. The restaurant entrepreneurs even went as far as switching off some ice machines, removing bath plants, adding timers in the showers, buckets in showers for re-use by housekeepers, water bottles in rooms, and collecting used water to re-use for gardens. The introduction of the Arc Aqua system that uses an ultraviolet light spray to disinfect water, recycling of water, use of big steamers instead of boiling to avoid using a lot of water, installed boreholes, reservoir tanks, and massive water tanks were strategies employed. Despite the implemented water-saving strategies, the fine-dining restaurateurs felt more needed to be done to survive the long-term water crisis.

The fine-dining restaurant participants recommended that the government build desalination plants to curb the water crisis, although this would be costly. The restaurateurs also suggested that the government try to meet them halfway instead of posing a threat to their businesses by forcing them to implement expensive water-saving methods without returns on their investments. The businesses should have contingency funds in place to boost survival during a time of crisis. The overall impression of the study was that it is not easy to survive as a small business during a time of a crisis, especially if there are no contingency funds in place. For an entrepreneur in an ever-changing environment, creativity, innovation, and sustainable entrepreneurship were vital to enhance competitiveness. Further studies will explore the impact of the water crisis on fine dining in South Africa.

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### **Abbreviations and Acronyms**

SA- South Africa

CPT- Cape Town

### **Glossary of Terms**

Earth Summit: Refers to a convention held by the United Nations on climate change to draft agreements on how to reduce emission of gases (Africa Geographic, 2007:59).

Entrepreneurship: "Is a process of creating something unique and valuable by committing resources through growing the business venture in terms of profit, products and market share by

accepting all the risks involved in the process to benefit from the rewards” (Van Aardt & Bezuidenhout, 2014:7).

Greenhouse gases: Any gases that give back to the greenhouse effect by absorbing infrared radiation e.g. carbon dioxide, methane, nitrous oxide and chlorofluorocarbons (Africa Geographic, 2007:22).

Creativity: Is the process of developing and implementing entrepreneurial ideas that are both new and useful to take advantage of the gaps in the market (Van Aardt & Bezuidenhout, 2014:42).

Innovation: Is a specific tool of entrepreneurship whereby entrepreneurs venture change as an opportunity for a different business or service. Piperopoulos (2012) suggested that innovation is a process by which information develops and is concretized in a product that meets human needs.

Kyoto Protocol: “Is an international treaty which involves the 1992 United Nations Framework Convention on Climate Change that commits State parties into reducing greenhouse gas emissions based on the consensus that global warming is occurring” (Africa Geographic, 2007:59).

Micro-entrepreneurs: When a small business employs a small number of employees (Van Aardt et al., 2014).

Small-scale entrepreneurs: A small business marked by a small number of employees, limited flow of finances and materials (Van Aardt et al., 2014).

Water Crisis: The lack of adequate fresh water resources to meet the demands of water usage within a specific region (Eyewitness News, 2018).

Day Zero: Refers to the same day an event occurs or vulnerability is discovered (Your dictionary, 2017). The announcement of Day Zero came as a shock for some of the restaurant businesses in Cape Town. The fine dining Restaurant entrepreneurs required effective planning and creativity to run businesses in the future as Day Zero almost left some businesses in Cape Town on the verge of closing down (City News, 2019).

Eco- Entrepreneurial strategy: When an entrepreneur accepts and implements the environmental commitment as part of the business. The employees and management are trained in the use and maintenance of ecological products as a key part of their jobs. Management then communicates the environmental, proactive approach to customers, suppliers, and other competitors to promote

understanding and acceptance, as well the value of environmental management in their business environment (Kyro, 2015:259).

CEO: Water mandate, also known as Voluntary United Nations initiative, signed by consumer goods production companies and cleaning product producers, including Coca-Cola Company, Nestle and Unilever, to commit the companies to using water responsibly (QSR, 2012).

Microcystis: This is a massive bloom of toxin that produces cyanobacteria (Bo- Qiang Qin, 2009).

## **CHAPTER ONE**

### **INTRODUCTION AND BACKGROUND TO THE STUDY**

#### **1. Introduction**

The Western Cape is a province found at the tip of Africa and one of South Africa's nine provinces (SA Venues, 2018). The province is South Africa's leading tourist destination where visitors can experience its natural beauty, mountains, vineyards, and the enchanting capital city called Cape Town.

Cape Town is home to the major Cape Town International Airport and thousands of tourists flock every year to experience the majestic Table Mountain and the beautiful Cape Peninsula. Cape Town recognized as one of the most beautiful cities in the world with good food and wine, scenic nature, history, and an overall good time (SA Venues, 2018). The statement “water is life” is often taken for granted, however the challenging circumstances around the water crisis in Cape Town have compelled entrepreneurs in the hotel and restaurant industry to appreciate the need to conserve water. Cape Town relies on tourism as its major form of income generation, and that means the more the crisis continues, the more restricted travellers to the city will feel, therefore forcing travellers to opt for other destinations where water is not a scarce resource and will not be told what to do or not to do. Considering that, Cape Town is heavily dependent on tourism as a source of income; a prolonged water crisis would have an impact on both the city and on travellers.

Furthermore, there has been tremendous growth in Cape Town’s population since post-apartheid. The population grew from 2.4 million in 1995 to 4.3 million in 2018, mainly due to immigration. Quartz (2018) stated that the city with such growth has increased its number of dams by only one additional dam; i.e. the Berg River dam, a total number of six dams for water supply. This suggests that the number of dams is insufficient in providing for the demand caused by the population increase seen in the province. Additionally, the recent World Bank survey revealed that poor infrastructure contributed to insufficient water to enhance production in businesses. The water sector's research findings also indicated that the current water situation in Cape Town has led to increasing costs that exceed the value of benefits, meaning that predictions for a sustainable future are desolate (Moss, 2018). The situation of insufficient water can be detrimental in the future for businesses that rely on water for survival. Therefore, it has become pivotal that entrepreneurs devise methods to ensure that guests are well cared for, and their needs met, as a form of job protection and profit maximization in restaurant businesses. Business Day (2017:

128) highlighted that “if the water sector is to stand a chance against the growing challenges it faces, it needs to adopt innovative, technical and commercial solutions”. The study determined the impact of the water crisis on fine dining restaurants in the Cape Town Metropole by assessing the effectiveness of business management strategies that the fine dining restaurants implemented for long-term sustainability, to ensure customer satisfaction, and maximise profits.

## **1.2 Problem Statement**

In 2016, the World Economic Forum identified water scarcity as the most extensive worldwide risk (Eyewitness News, 2018). Two years after identifying the risk, an inevitable drought that could leave Cape Town without water affected tourism visitor numbers and knocked the economic growth as travellers rather stayed away from Cape Town (Eyewitness News, 2018). Restaurants in the Cape Town CBD are heavily reliant on the influx of tourism during the summer periods. However, November-April 2017/2018 came with a challenge for tourism businesses, potentially due to the water crisis (Oteng, 2018).

This had a direct impact on residences and businesses in the city for a number of reasons discussed extensively in this thesis. The water tariffs increased to R40 per litre from R22.38 per litre in 2017, leaving many businesses astonished (IOL, 2018). The average bath water usage reduced to 60 litres per person (Eyewitness News, 2018). Hotels had to compromise their standards by asking guests to limit showers to two minutes or less, while some restaurants were switching to disposable cups and ditching table linen.

In an attempt to adhere to water restrictions and the accompanying penalties in the form of increased water tariffs, restaurants continuously sought measures and ways of reducing water usage and its associated cost. For instance, in the attempt to eliminate washing 5,000 plates a week, some restaurants resorted to serving only two of the food menu courses on disposable cards fitted into an empty picture frame. The entire six-course menu served on the disposable card, can be very degrading for a fine dining establishment (The telegraph, 2018). Furthermore, guests were required to use the same cutlery in all of the six-course meals. Having worked hard to perfect the current tasting menu, restaurant owner, Dale, elucidated how he found it stressful, having to adapt to washing dishes using less water (The telegraph, 2018).

Such attempts have pushed some fine dining restaurants to the brink of closing down as they compromised standards to cut costs. The overarching impact of these water-saving techniques have brought nothing other than financial strain on restaurant businesses. This is a new study

and there is a gap in literature. Therefore, the researcher uses this study to bridge the gap in literature. It is pivotal to study the impact of the water crisis on fine dining restaurant businesses' financial performance and the effectiveness of the innovative contribution made by restaurant entrepreneurs in devising methods to deal with this problem to achieve job protection and profit maximisation.

The objective of the study aimed to answer the question and to bridge the literature gap by determining the entrepreneurial role played by fine dining restaurants to sustain their businesses in the long-term. The study further revealed that the financial strain from water restrictions has motivated some restaurants to innovate and adapt new strategies. The study determined the impact of water crisis/ restrictions on fine dining restaurants' financial performance in the Cape Town Metropole.

### **1.3 Rationale and Significance of the study**

The research aimed to diagnose the challenges/problems created by the water- crisis on fine dining restaurants in the Cape Town Metropole. The problem of water restrictions was affecting the businesses that rely on water for survival in Cape Town, and it was therefore pivotal to find an appropriate water management model for future sustainability, since Cape Town is a water-scarce region (Smith & Hanson, 2003:1517-1548). The research study examined the creative and innovative initiatives implemented to arrest the crisis, avoid the negative impact it had on customer satisfaction, and determine profit maximization. The water-crisis affected the fine dining restaurants' financial performance due to increased water-tariffs by the city of Cape Town and less dining capacity due to severe drought threats. The problem was that innovative methods could affect customer service standards. If the methods did not satisfy customers, this could also lead to profit loss and a negative impact on restaurant businesses and tourism in the Western Cape. Businesses in Cape Town were required to implement water-saving strategies or face harsh water penalties and implement strategies requiring financial capacity. This study I also assisted all businesses that rely on water for survival to save water without jeopardising the standards of service. The study aimed at saving jobs if the restaurants managed to sustain their businesses over the long-term. This study also hoped to create awareness in everyone about the importance of understanding water conservation and the impact of environmental change. The study may bridge the study gap and contribute to the literature that will assist businesses that rely in water for survival in the future.



Furthermore, the results would help authorities have a solid understanding of the problem to make sound decisions. The study's motivation was the desire to find ways to solve the dilemma that the water crisis had brought to the businesses that rely on water for survival, specifically the fine dining restaurants.

#### **1.4 Research aim**

The water crisis impact has affected the management of fine dining restaurants in Cape Town, and high water tariffs have forced some of them to devise methods to survive. The study aimed to determine the impact of the water crisis on fine dining restaurants' financial performance in Cape Town and to identify the long-term adaptive methods implemented to boost business for survival, to ensure customer satisfaction, and maximise profit. The question guiding this research was to analyse the effectiveness of the operational business strategies implemented by fine dining restaurants in the Cape Town Metropole to ensure customer satisfaction and maximise profits. The problem of the water crisis in Cape Town seemed to be threatening the survival of entrepreneurial businesses that rely on the water and was a topic not previously explored. The study took advantage of the research gap to find effective measures that would assist the restaurants for long-term survival.

#### **1.5 The objectives of the study**

According to Saunders, Lewis and Thornhill (2009:25) objectives are generally acceptable to the research community as evidence of the researcher's clear sense of purpose and direction. The objectives provide a clear indication that theory needs to be developed to make a causal link between two sets of variables (Saunders et al., 2009:25).

##### **1.5.1 Research Main Objective**

To determine the effectiveness of the business management strategies implemented by fine dining restaurants due to the water-crisis, for customer satisfaction and profit maximization for long-term survival of fine dining restaurants in the Cape Town Metropole.

##### **1.5.2 Research Sub- Objectives**

1. To identify the implemented business management strategies due to the water crisis for long-term existence.
2. Determining the barriers to the business management strategies implemented.

3. To determine the financial impact on fine dining restaurants due to the water crisis.

## **1.6 Research Questions**

Clear research questions constitute the beginning of the research process and are the key principles of the research, based on clear conclusions drawn from the data collected during the research (Saunders et al., 2009:23).

### **1.6.1 Main Question**

How has the water crisis/restrictions impacted the customer satisfaction levels and profit maximization for long-term survival of fine dining for the restaurant?

### **1.6.2 Research Sub- Questions**

1. What business management strategies are implemented due to water restrictions/water crisis for long-term existence?
2. What are the barriers/ challenges to the business management strategies implemented?
3. What are the impacts on financial performance due to the water crisis?

## **1.7 Introduction to Literature**

Mukheibir and Ziervoge (2007:143) revealed that climate change increased the likelihood of extreme weather events such as droughts, floods and heatwaves and stimulated a more gradual change in temperature and precipitation. Mukheibir and Ziervoge (2007:143) further stated that Cape Town, South Africa, was at risk from projected climate-influenced warming and changes in rainfall variability. This prediction's accuracy is a reality today as the city is experiencing a water crisis, posing challenges on its residents and businesses.

The Western Cape Province known for being a region of water scarcity with a mean rainfall of about 348mm (Jansen & Schulz, 2006:7). Cape Town's highest rainfall is during the winter season, while the period between October and March is a dry season, resulting in the City authorities' implementation of restrictions on water usage by 30% (Jansen & Schulz (2006:7). The studies indicated a need for a conservative approach to water management to achieve future sustainability. The businesses that rely on water for survival need to devise methods that will ensure customer satisfaction to maximise profit.

Cape Town is not the first city to suffer from a water crisis, as the majority of countries in the world suffer from water crisis. Major cities such as California, Melbourne, Baja California Sur, and

Mexico have faced severe water shortages (Dolnicar & Hurlimann, 2010:43-53) (Howitt, MacEwan, Madellin-Anzura, Lund & Summer, 2017:7). “Ensuring qualities of clean, safe water for the needs of humans and ecosystems is one of the greatest challenges worldwide. Satisfying demands for freshwater is expected to become increasingly difficult in the context of a changing climate” (McEvoy, 2014:518-541). Therefore, entrepreneurs must contribute extensively to devising methods to deal with the problem that is threatening to wipe out humanity in the long term. What is equally important to note is that the majority of well-known restaurants, like Ocean Basket, feel threatened by water shortages, as they are the most significant water users for filleting fish (Spiro, 2018). According to Spiro (2018), the Ocean Basket's filleted fish relies on clean running water and a water shortage puts intense pressure on this process. The restaurants can buy the pre-filleted fish at a high cost, and the question remains whether these costs to the diner are worth their business survival. The problem around the high costs that resulted from water restrictions is a problem that raised concern on long-term survival of the fine dining restaurants. In dealing with the water problem in Mexico and Australia, desalination plants and groundwater have been utilised to meet the water demands and allay residents' fears of water shortages (McEvoy, 2014:518-541).

Howitt, MacEwan, Madellin-Anzura, Lund and Summer (2017:7) further stated that the Californian drought, that took place in 2015, had a significant impact on the agricultural sector, leading to an estimated 21 000 job losses, 902 million dollars in gross crop revenues, 250 million dollars for dairy and 100 million dollars for other livestock. This indicated the crippling effect of a water crisis on the economy. In the year 2017 South Africa's Eastern and Northern provinces experienced severe droughts with significant numbers of livestock dying and crops being lost to drought and this was visible in the provinces of Limpopo, North West, and Kwazulu Natal. In addition to this, Western Farmers had to receive stock feed donations from the province of Mpumalanga (ENCA, 2016). One cannot be in denial about the possible consequences of the water crisis, citing the event of 2017 in South Africa and its entrepreneurs in the agricultural sector (ENCA, 2016).

About 10 million tourists visited Cape Town in 2017, drawn by iconic sights like Table Mountain, the city's long sandy beaches, and the beautiful wine farms. In South Africa, tourism accounts for 9 percent of the country's economic output with an estimated income of R412 Billion (Reuters, 2018). According to Times live (2018) it is inevitable that a water crisis is frightening to many international visitors and businesses in Cape Town. The reduction in international visitors could reduce the capacity of dining in the best fine dining restaurants found in Cape Town, leading to

loss of profit and closing down of some of the restaurants. However, the study aimed to determine the impact of the water crisis/restrictions on fine dining restaurants in the Cape Town Metropole.

In attempts to limit economic damage that could lead to job loss in South Africa, SA Tourism and government agencies embarked on a global roadshow to reassure potential visitors to aid the city against the fight for water security (Reuters, 2018). The problem of the water- crisis could mean loss of jobs because Cape Town is the tourism hub, fewer visitor numbers could lead to a decline in the economy of South Africa.

According to the Cape Chamber of Commerce and industry, there has been “too much water politicking and too little sound planning” (Times live, 2018). More than 6% of businesses in Cape Town confirmed during the study that they would shut down on Day Zero, whereas 11% verified that the businesses would send staff home, but 69% of businesses said they would continue operating on Day Zero (Times live, 2018).

Rotberglexington (2018) confirmed that the water crisis in Cape Town was scary and a solution to this instituted by adopting Windhoek's method of re-using the grey-water. This method is less expensive than building desalination plants for future purposes. The water crisis issue has made things difficult for all those who live in Cape Town and for businesses. The restaurant businesses need to ensure that adequate measures are in place for long-term survival (Quartz, 2018).

It is indeed crucial for the restaurant entrepreneurs in Cape Town to be innovative in managing their businesses, to avoid the worst of the water crisis in Cape Town. To prevent job losses and closing of these restaurants, Cape Town restaurants implemented short-term measures to curb the water crisis. Pasta and boiled vegetables disappeared from some menus at restaurants in their effort to save water (BusinessDay, 2018). The Pane E Vino Food and Wine Bar in Stellenbosch encouraged their staff to bring their own drinking water from home and the restaurant re-used most of its water (BusinessDay, 2018). Pane E Vino Food and Wine confirmed the re-use of water, used to cook the spinach, to wash the dishes and water used to wash cutlery re-used for the restaurant's garden. The question arose on how long these restaurants could operate like this and whether they met the service standards of fine dining.

According to CNBC (2018) the cost of production for fruit and vegetables, e. g. wine, potatoes, onions, and tomatoes has dropped by 15% each year due to water shortages. The decline in production of these products lead to high selling prices and an increase in the selling price lead to a loss of revenue for the restaurants, due to less buying power. There is so much pressure

exerted on entrepreneurs due to the water shortage. The Vineyard Hotel restaurant discarded pasta from the menus and customers could no longer order boiled vegetables (BusinessDay, 2018). The restaurant manager at the Vineyard cited that food is uncooked, but steaming, frying, and shallow frying implemented and pasta removed from the menu. Restaurant Villa 47, in the City Centre, introduced water-saving devices on their taps. The restaurant used 25-litre water containers to catch the runoff from the ice machines and the ice wells. The re- use of water gathered from the ice machines and the air-conditioning to wash floors. The restaurant did not use tablecloths but used paper napkins only (BusinessDay, 2018). The Carne, an Italian restaurant, used various paper and cloth napkins to avoid washing the dishes. The menu did not use water as the Italian meat grilled entirely (BusinessDay, 2018). The Western Cape economy had reduced by 1% from its national contribution of 13% per annum, and a 0.13 % growth reduction came from domestic products. However, the decline in economic growth came from the water crisis was not confirmed (CNBC, 2018). There was a clear indication that the water crisis and restrictions had affected the businesses relying on water in Cape Town, financially. According to IOL (2018) business entrepreneurs must play a vital role in conserving water for sustainability. John Schooling, the managing director of construction and energy accentuated that drought had spurred local businesses and forced those that rely on water to rethink ways of conducting business and to adapt their strategies to become more water-wise (IOL, 2018). The restaurant entrepreneurs' chosen approach required sound business management strategy to avoid the inevitable Day Zero and business and profit loss (news24, 2018).

### **1.8 Research Paradigm, Methods and Methodologies**

According to scientists, there are different types of human knowledge or beliefs based on qualitative and quantitative paradigms. When using the quantitative approach, reality examined by means of valid and reliable tools.

The qualitative approach believes that nothing is only a single truth or reality because reality is socially constructed, thus an interpretive/constructivist approach. In this approach, scientists believe that achieving reality is through interpretation.

This study used a qualitative approach as deemed necessary. In-depth semi structured interviews were conducted to answer the research problem. The qualitative approach is commendable for the study to obtain in-depth information from the study participants.

The water crisis forced the restaurant entrepreneurs to devise new methods of sustainability. According to Moss (2009) the businesses that have been working for years towards greater

efficiency in their water–usage are to be aware if they are working towards short- term water-saving strategies rather than long- term investments for sustainable development.

The research embarked on the study to investigate the impact of water restrictions/crisis in business operations of the selected fine dining restaurants in the Cape Town Metropole and to determine the effectiveness of restaurant entrepreneurs' innovative contribution in devising methods to deal with this problem for long-term survival. The study determined the impact of the water crisis on fine dining restaurants' financial performance in the Cape Town Metropole. The restaurant businesses were chosen for the study due to the research gap, as no previous studies had been done to find ways to sustain businesses in a long-term environment that rely on water for survival, specifically restaurants. The exploratory research design permitted sound primary data collection, therefore providing new insights and viewpoints on the study.

George (2011:131) defined Qualitative research “as an in-depth interview to uncover underlying attitudes and motivations”. Uys (2018: 42) states that the use of the quantitative method consists of conducting research using open-ended, designed questionnaires, while the qualitative method collects data using semi-structured interviews. Uys (2018:42) further states that qualitative approach is used to discover the underlying meaning of events and activities when studying a phenomenon and uses in-depth interviews, observations, participants, narratives, etc. (Uys, 2018: 42).

The Qualitative Data involves the collection of a variety of empirical materials such as case studies, personal experiences, introspective, life- stories, interviews, observations, historical, audio- taped interviews that get transcribed, video- taped interviews, observations of participants for a specific context, virtual text (Aspers & Corte, 2019).

A research design is a directive of how research questions will be answered (Saunders, Lewis & Thornhill, 2009:88). It can be either empirical or conclusive. According to Bryman (2004:19), there are two different tools for collecting and analysing widely used data, namely quantitative methodology and qualitative methodology. Walliman (2006:36) added that a qualitative study relies more on language interpretation through human interaction and theory building. A quantitative methodology seeks to quantify data and typically apply statistical analysis (Maholtra & Birks, 2007:152). The study design is empirical, meaning based on experience rather than theory. The data collection conducted by means of in-depth interviews, to determine the effectiveness of the business management methods that the restaurants innovated for long-term

survival as well as the impact of the water crisis on the financial performance of fine dining restaurants in the Cape Town Metropole.

### **1.9 Demarcation/delimitation of the study**

The study area was the Cape Town Metropolitan area. The study focused only on selected fine dining restaurants in the Cape Town Metropole.

### **1.10 Target Population**

Saunders et al. (2009:150) described a population as a set of cases or objects where the researcher extracts a sample. The target population for the study was the restaurants in the Cape Town Metropole. However, the study narrowed it down to formal restaurants or fine dining. Therefore, the study excluded quick-service restaurants, cafes, and cafeterias. The units of analysis were fine dining restaurant businesses. The study participants from the selected population were restaurant owners/ managers, since they are the decision-makers for business operations.

According to Saunders, Lewis, and Thornhill (2009:150) it would be unfeasible to survey the whole population, hence the use of a sample. There are two Sampling techniques, probability or representative and non-probability or judgmental, both provide a range of methods that enable the researcher to attain data only from a selected sample size rather than all possible cases or elements.

Sampling is selecting units (e.g., people, organisations) from the population of interest. By studying the sample, the results are generalised or traced back to the chosen population (Jennings, 2010:443). Probability sampling is often associated with surveys. The sampling technique used for this study was purposive sampling. Purposive sampling is a non- probability-sampling method, and individuals selected based on the characteristics of the population and the study's objectives (Maree, 2007:178). This method is useful when a researcher seeks to reach a target sample quickly (Maree, 2007:178).

### **1.11 Sample Size**

According to Saunders, Lewis, and Thornhill (2009:156), the population's sample size must amount to a 95% confidence level to generalise the results. The sample size taken from the population of 29 fine dining restaurants found in the Cape Town Metropole (Eatout, 2018). Five restaurants selected for the sample size of the study. The individuals were owners and managers from the fine dining restaurants selected, best suited to answer the research questions. Uys

(2017:41) added that analysis of the results from the selected sample was important and can only be generalised to the whole population if the sample size is big enough, usually, if it amounts to 30 and the p-value  $<0.05$ , considering costs and time of conducting the study.

### **1.12 DATA COLLECTION TECHNIQUE**

The study carried out semi-structured interviews with restaurant owners of the fine dining restaurants in the Cape Town Metropole. The interviews included personal interviews, also known as face-to-face interviews and telephonic interviews. The purpose of conducting personal interviews is to explore individuals' responses to discover deeper information (Jennings, 2010:171). To conduct the interviews, a drafted semi-structured interview schedule was completed.

An interview schedule is a guide that the interviewer uses when conducting the semi-structured interview and it consists of all sets of questions the interviewer asks the interviewee (Sage Research Methods, 2018). During the interviews, the data is tape-recorded and later transcribed. The development and the design of the questionnaire determine the research finding. The questionnaires were pilot-tested through face-to-face interviews with the supervisor to guarantee a high response rate and reliability. The research process answers whether what is measured, is in fact measured (causal effect). The data collected through the interviews are primary data, which makes the study inductive instead of deductive. The study ensured that all study participants were indeed from fine dining restaurants and were owners/ managers, to validate the findings. The study's informants were restaurant owners/restaurant managers from the selected fine dining restaurants in the Cape Town Metropole, as they are involved in business decision-making. The informant's role answered the questions based on the semi-structured interview. The semi-structured interviews were informal, non-standardised, and in-depth. The interviewee had an opportunity to express freely during the interview. The interviews scheduled for a maximum of one hour per interview. This method assisted the study in obtaining in-depth information for the study group discussions. Maxwell (2005:96) stated that the main categorising strategy for qualitative research was coding. As mentioned by Atlas.ti (2012), "most coding requires the researcher to read the data and demarcate segments within it and each segment is labelled with a 'code'. When coding is complete, the researcher prepares reports discussing similarities and differences in related codes across distinct sources/contexts, or compares the relationship between one or more codes." Once the interviews are completed, the information collected was categorised and compared across cases (Stoner & Angell, 2006:179). The question around the water crisis impact on fine dining restaurants was determined through the data analysis method.



### **1.13 Ethical consideration**

Ethical considerations are central to conducting a study in good faith without compromising relations with targeted participants. Ethical considerations are a clarification of the “Do's and Don'ts” in the process of obtaining or gathering data from the targeted sample. According to Heffernan (2005:89), the main aspect regarding research ethics is to ensure informed consent, right to anonymity and confidentiality, and voluntary participation from participants of the study.

#### **1.13.1 Anonymity and voluntary participation**

To guarantee participants that they remain anonymous, their names were undisclosed, they participated voluntarily, and were not forced to participate in the study. The reasons for the study explained and confirmed that participation was voluntarily, meaning no incentives offered to them in exchange for their time. Before conducting interviews, ethical procedures considered, no respondent forced to participate in the study, and the researcher explained rights to anonymity to all participants.

#### **1.13.2 Confidentiality**

The researcher guarantee assurance of confidentiality of the interviewee's identities either nor were their names or businesses disclosed. The interviewees had the right to withdraw from the interview at any stage. The researcher ensured compliance to the data protection for legal requirements at all times (Saunders, Lewis & Thornhill, 2003:142)

#### **1.13.3 Informed Consent**

Informed consent obtained from all participants in writing before conducting interviews. The reasons for the research were explained and they were informed that their participation was voluntary, no incentives were offered to them in exchange for their time (Saunders, Lewis & Thornhill, 2003:134).

The debriefing process provided the research participants with the full explanation of the research hypothesis and included the background information pertaining to the study (Ummassamherst, 2015).

#### **1.13.4 PERMISSION**

The researcher obtained required written permission to conduct the study as evidence of granted permission for the researcher to visit the businesses for data collection, avoiding trespassing. The

researcher worked according to the times agreed with the participants for interviews. This ensured credibility in gaining access to the informants, time, organisation, and information obtained in writing (Saunders et al., 2003:122).

### **1.14 Conclusion**

This chapter gave the rationale for the study by outlining the study objectives, research questions, problem statement, and literature introduction. The next chapter (chapter 2) provides an extended literature review covering entrepreneurship, entrepreneurial motivation, sustainable entrepreneurship, global perspective on the water crisis in South Africa and in Cape Town, etc.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2. Introduction**

Chapter 1 of the study presented an introduction to the phenomena that the study sought to uncover about water crisis challenges for fine dining restaurants in the Cape Town Metropole. The formulated study was to determine the impact of the water crisis on fine dining restaurants and determine the effectiveness of the management strategies implemented by restaurants due to the water crisis for long-term survival. The researcher undoubtedly reviewed literature on water crises to bridge the existing literature gap regarding the phenomena of the research study. Some restaurant businesses operating in the Tourism hub, Cape Town, a fiercely competitive and changing environment, had an obligation to ensure survival in the market in the midst of the water crisis challenges. However, some restaurants were at the brink of shutting their doors due to the water crisis challenges. The literature revealed that the success of a fine dining restaurant depended on meeting certain criteria considered important by customers for consumer satisfaction, i.e. consumer quality, ambience of the restaurant, and quality of the food served (Petzer & Mackay, 2014: 2). Having to consider all the above to remain competitive, the water crisis required fine dining restaurateurs to implement sustainable strategies to survive the ever changing environment.

As previously stated, the statement “water is life” is often taken for granted, however, challenging circumstances around water restrictions in Cape Town have made entrepreneurs in the hotel and restaurant industry appreciate the need to conserve water. It has therefore become pivotal that fine dining restaurants devise methods to ensure that guests are well cared for and their needs met, as a form of job protection and profit maximisation for restaurant businesses. In order for the restaurant entrepreneurs to achieve this, they had to develop creative ideas for handling the water crisis and implement new strategies to manage the restaurant businesses to enhance profitability. This chapter reviews literature on the ideas of entrepreneurial practices such as sustainable entrepreneurship to achieve long- term survival of fine dining restaurants during the water crisis. Furthermore, the chapter gives detailed links between entrepreneurial practices, water crisis and fine dining restaurants and further definitions of the key terms in the study, i.e. entrepreneurship, innovation, creativity, sustainable entrepreneurship, water crisis, Ecopreneurship and Fine dining restaurants.

## **2.2. Entrepreneurship**

Piperopoulos (2018:19) described entrepreneurship as the process of creating and innovating actively functional economic units for the purpose of business growth and profit-maximisation under risky conditions. Entrepreneurship defined as a process of creativity in which opportunities observed and sources mobilized to bring change in pursuit of financial benefits. Kyro (2015:11) agreed with the above, asserting that the core of entrepreneurship is innovation, combining resources in an innovative manner to create something new. It is clear that creativity and innovation go hand-in-hand with Entrepreneurship. Drucker (2018:12) simplified it by stating that Entrepreneurship involves a wide range of activities that are required to create an organisation, to carry out new procedures, organizational structures, and product/service to create wealth under conditions of risks (Piperopoulos, 2018:190). According to Tenengeh (2016:203), businesses require bold entrepreneurial drive and resilience in a volatile business environment. Entrepreneurship is a meta-economic venture, meaning something that influences and shapes the economy of the country (Kyro, 2015:33). Entrepreneurship incorporates vigorous processing of vision, creating change, and something new. Being an Entrepreneur requires an application of energy and passion towards the creation and implementation of new ideas and creative solutions. Furthermore, Bjerke (2007:17) affirmed that entrepreneurship involves the inclination of taking calculated risks in terms of time, ability to formulate an effective venture team, creative skill to

marshal needed resources, fundamental skills in building a solid business plan, and a vision to recognize opportunities where others see chaos, contradiction, and confusion. Entrepreneurship continues to play a vital role in the economies of many developing countries, including South Africa. The definition of Entrepreneurship of the above scholars affirms that being an entrepreneur in a changing environment as stated above, requires a creative and innovative approach when running any business, especially those that rely on water for survival. The study aimed to determine the effectiveness of the innovative strategies created by fine dining restaurants in the Cape Town Metropole due to the water crisis. The problem of the water crisis in Cape Town has motivated restaurateurs to change their ways of doing business to ensure long-term survival. The above definitions of entrepreneurship affirm that to ensure long-term survival, restaurant entrepreneurs should explore the entrepreneurial practices and only true entrepreneurs achieve this.

### **2.2.1 Definition of an Entrepreneur**

“Entrepreneurs are like explorers who travel into uncharted territory and open up new routes along which all of us will be travelling,” said Lindiwe Zulu the Minister of Small Business Development in South Africa at the launch of the global Entrepreneurship week in 2016 (SA Government, 2016). Indeed entrepreneurs are the heroes of our world. Despite the risks, hard work, challenges, hostility from society, resentment from any opposing views, and any hindrances they may be facing, they press on and keep creating, they keep on producing and trading against all odds. It is therefore imperative that under significant challenges micro-entrepreneurs and small-scale entrepreneurs are continuously devising methods for their continued existence (Van Aardt & Bezuidenhout, 2014:9; BusinessDay, 2017:129).

Bjerke (2007:16); Venter and Rwigema (2004: 6) defined entrepreneurs as agents of change with an understanding that the future cannot be modeled, systematized, or institutionalized, yet they are enterprising enough to bring innovations of all kinds. Entrepreneurs create new ideas (creativity), new products and services, create jobs, economic growth, and enhance competitiveness. The process of creativity and innovation in businesses is an entrepreneurial tool used by true entrepreneurs. According to Venter and Rwigema (2004:6) true entrepreneurs are set apart from other people by the ability to act on their ideas. Entrepreneurs are the galvanizing force behind the success of a business, coordinators of resources, and act as agents of change to exploit opportunities that exist in the market. The entrepreneurs create new enterprises and form a new organization of values, initiate ideas, develop opportunities by employing individuals

to ensure planning, organizing, leading, and control of resources to achieve financial gain. Entrepreneurs aim for high potential business ventures. Entrepreneurs share certain traits like innovativeness, initiative, drive to achieve, willingness to take calculated risks, flexibility, and competitiveness (Venter & Rwigema, 2004: 60).

The content of this study focuses on Restaurant entrepreneurs, also known as Restaurateurs. However, the ongoing water crisis in Cape Town poses a different kind of challenge, which requires all stakeholders to play an active role to solve the problem because failure to achieve this will lead to loss of employment and a segment of local government revenue (Business Day, 2017:129). As the study revealed that entrepreneurs are agents of change, they must ensure the survival of their businesses through water- conservation, by devising methods or strategies aimed at saving water without compromising the service standards and profit maximization. The entrepreneurial strategy of conservation also referred to as sustainable Entrepreneurs and Ecopreneurs. The stride taken by fine dining restaurateurs to achieve sustainability is the research gap that this research seeks to unearth.

### **2.2.2 Entrepreneurial Motivational factors**

Entrepreneurship motivation occurs through change and change comes in different ways, environmental change, social needs or change, and political change. According to Venter and Rwigema, (2004: 13) entrepreneurial motivation initiates the creative step in starting up the business to maturity stage using innovation as well as sustainability as a tool for growth to maximise long-term profitability. According to Kyro (2015:25) business growth is linked to sustainable development and creating tremendous wealth using fewer resources gives an idea of a different kind of entrepreneurship in achieving ecological sustainable development. According to Bjerke (2007:162) business growth is important for the economy as well as employment enhancement. An entrepreneur needs to monitor growth in the business by measuring profit margins, employment, turnover and business image/ profile, and return on investments.

According to Tengeh (2016:205), the unfavorable business environment discourages the startup, growth of a business venture, and inhibits business stability. The economic instability in South Africa requires entrepreneurial businesses that are motivated using the stage – model for growth, presented below by Bjerke. The environmental change leading to the water crisis in Cape Town was an entrepreneurial motivational factor in this study. This study focused on the environmental motivation of entrepreneurship for fine dining restaurant businesses to ensure profit maximization and long-term survival. Furthermore, the study determined effective sustainable solutions to the

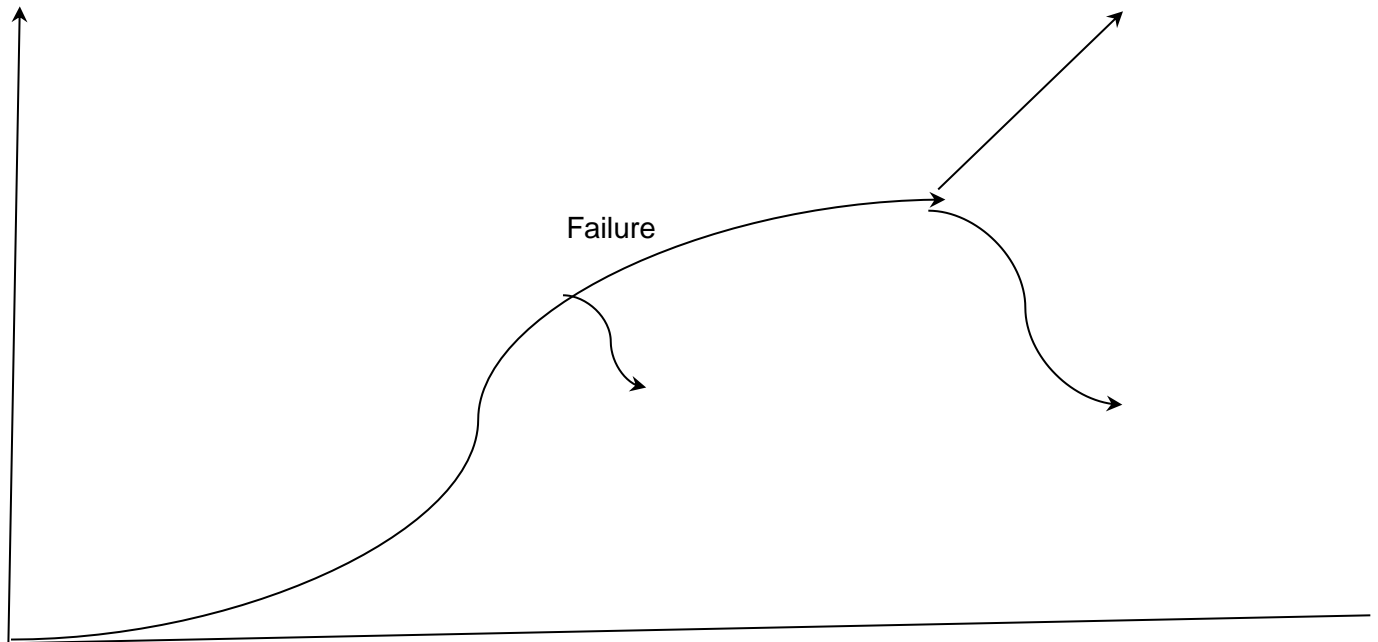
water crisis for long-term survival. The diagram below illustrates growth stages for a single business firm:

Profit

Productivity

Revenue

Growth



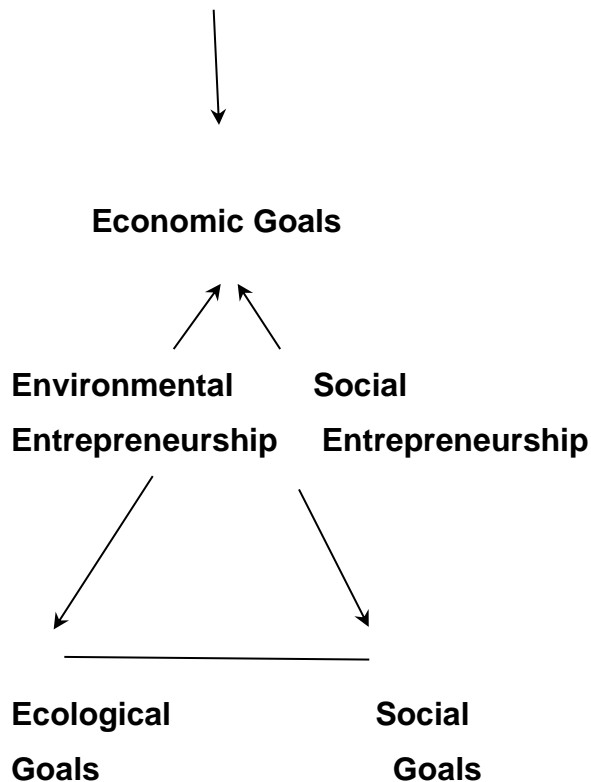
**New Venture Start-up   Venture Growth   Stability Phase   Innovation or Decline**

**Figure 2:1 Stage-model for growth** Bjerke (2007:16)

Figure 2.1 illustrates the start-up phase of any business venture, venture growth, and stability until Innovation or Decline. The majority of businesses fail in the growth phase due to unfavorable conditions such as social, economic, and political changes as stated by (Tengeh, 2016: 205). The main tool for managing the firm is to identify the extrinsic factors through using the environmental threats as opportunities to enhance growth. The business can either be innovative to reach the maturity phase or fail to be creative and innovative and then eventually reach the decline phase. The change that the study focused on is the environmental/ climate change causing the water

crisis in Cape Town, motivating some of the restaurant entrepreneurs to create new ideas to achieve sustainability in their businesses. The main key to sustainable growth is constantly finding better ways of doing things (Bjerke, 2007:9). No business can reach sustainable growth without innovation. How innovative the business is, determines the competitiveness of the business. To introduce new innovative systems to achieve the long-term sustainability of a firm is the key (Bjerke, 2007:13). The city of Cape Town endured the water crisis pandemic since 2015 and the entrepreneurs that rely on water for survival needed to be creative and innovative in finding different ways of dealing with the water crisis challenges, for survival. Many businesses are facing enormous challenges due to the changing environment, including political instability, in South Africa. Businesses must properly plan and consistently innovate to avoid reaching the failure phase. The changing environmental problems require many businesses to fight for long-term survival through sustainable entrepreneurial practice.

**Conventional Entrepreneurship**



**Figure 2:2** Conceptual framework of entrepreneurship (Kyro 2015: 32).

Figure 2:2 illustrates the functional goals of conventional, ecological and social entrepreneurship (Kyro, 2015: 32). According to Kyro (2015:32) it is clear that conventional entrepreneurship is driven by economic growth, therefore this kind of entrepreneurship takes advantage of the gap in the market by using innovative and creative ideas to create a new product to maximise profits. Environmental entrepreneurship takes advantage of the market needs by focusing on ecological goals, whereas Social entrepreneurship focuses on social needs. All these entrepreneurial functions play a vital role in determining business growth.

### 2.2.3 Sustainable Entrepreneurship and sustainable growth

Sustainable entrepreneurship involves the motivation to make a profit whilst aiming at improving environmental conditions within the business by creating social values in addition to the economic and environmental benefits of the enterprise (Kyro, 2015: 53). According to Welter (2012: 959), the problem of using water wastefully in Cape Town, requires careful consideration. Sustainability was deemed necessary to address overconsumption of water through the cutting of resources and other avenues explored (Welter, 2012:959). Furthermore, sustainable entrepreneurship pursues the triple bottom line, economic, social, and ecological goals. This kind of entrepreneurship leads to economic progress, by breaking old behavior and inventing new ways and methods (Kyro, 2015:12). Ecological/ environmental entrepreneurship involves discovering, evaluating, and exploiting economic opportunities that exist in the market (Kyro, 2015:34). Sustainable entrepreneurship includes financial development, longevity, and sustainability of businesses (Kyro, 2015:40). According to (Kyro, 2015: 258) scarcity or limited resources drive sustainable entrepreneurship. Sustainable entrepreneurship has mainly three concepts; conventional entrepreneurship, environmental entrepreneurship, and social entrepreneurship.

**Table 2:1 Concepts of Sustainable Entrepreneurship Source: (Kyro, 2015: 32)**

<p><b>Conventional Entrepreneurship</b></p>	<p>This kind of entrepreneurship is income and profit-driven. This involves using innovative thinking for creating new ideas that enhance economic growth. The entrepreneur here uses new opportunities in the market to create new products or services to close the gap to ensure low costs and profitability (Kyro, 2015: 33). Conventional entrepreneurship positions its focus on reaching economic goals.</p>
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<b>Environmental entrepreneurship</b>	According to Kyro (2015: 34) Environmental entrepreneurship, also known as Ecopreneurship, believes in being environmentally responsible but ensuring that profitability is an opportunity worth exploring. The ecopreneurs discover, evaluate, and explore the economic opportunities in the unexplored market. Conventional and Environmental entrepreneurship aims to save the environment and to make a profit (Kyro, 2015: 35). This kind of entrepreneurship is very important in the modern world faced with environmental challenges. Entrepreneurship requires someone that thinks of the environment before pursuing any kind of business idea.
<b>Social entrepreneurship</b>	Is about applying a plan to create and sustain social values. Furthermore, social entrepreneurship is about being innovative consistently in pursuing new opportunities. It is also categorised as a mission-driven entrepreneurship to create and sustain social values. This kind of entrepreneurship is not for profit growth (Kyro, 2015: 36-37).

The above Table 2:1 defines the three concepts of sustainable Entrepreneurship. Kyro (2015:32) gave a clear understanding of each concept. Kyro (2015:32) believed that conventional entrepreneurship uses innovative thinking to create new products for profitability, Environmental entrepreneurship ensures profitability without jeopardising the environment, whereas Social Entrepreneurship is not profit-driven but mission-driven to create and sustain social values. According to Venter and Rwigema (2004:10) businesses in South Africa require entrepreneurs that seek to maximize their goal sustainably and realize that survival depends on creativity by taking advantage of opportunities that exist in the environmentally challenged market. The study focused on environmentally sustainable entrepreneurship in fine dining restaurants by analyzing the use of sustainability as a tool to fight for survival during the water crisis in restaurant operations without jeopardizing the profit margins. The businesses that use water for business survival have a mandate of ensuring the use of water sparingly or face the harsh municipal penalties and businesses also need to protect the environment in any business practices. Entrepreneurs known

as Ecopreneurs can only achieve sustainable growth for business ventures through sustainable Entrepreneurship.

#### **2.2.4 Ecopreneur and Ecopreneurship**

Due to environmental changes, entrepreneurs identify business opportunities that will give them a competitive edge in the ever-changing market needs. Ecopreneurs are entrepreneurs that focus on sustainable development, economic growth, and social welfare. Through ecopreneurship, companies have capabilities to achieve the creation and development of profitable businesses (Kyro, 2015:260). The researcher found ecopreneurship relevant to the study because the fine dining restaurateurs establish their existence in the market taking into consideration the environmental issues like the water crisis. Some fine dining restaurant owners adopted and implemented new strategies of managing water-usage in their businesses to follow the strict government regulations on water saving and to ensure business sustainability. The study sought to determine the effectiveness of the strategies implemented by fine dining restaurants to maximize profit and to ensure long-term survival during the water crisis.

##### **2.2.4.1 Ecopreneurship motivation**

Entrepreneurs become Ecopreneurs due to certain factors and all these factors are creative plans to remain in business and to maximize growth.

1. Compliance-based environmentalism is due to government rules and regulations whereby companies are forced to comply with mandatory environmental regulations. The regulations can improve internal efficiency in businesses through innovative resource productivity. The businesses focused on attempts on finding innovative, cost-effective and sustainable solutions to avoid penalties and to overcome environmental problems. The study proved that the implementation of new internal business strategies for advanced environmental approaches enhanced productivity and efficiency although the implementation could increase costs within the business (Kyro, 2015:261).

2. Another motivating factor is market-driven and value-driven environmentalism. The study only focused on Compliance-based environmentalism, as some of Cape Town businesses are motivated by the water crisis and the government regulations to ensure compliance with the water

saving strategies. Kyro, 2015:261 revealed that consumers also started showing interest in businesses that are environmentally cautious, expecting high levels of social and environmental responsibility. Kyro (2015:261) further stated that an effective ecopreneur ensures that the entire organization, including employees, is aware of the environmental values and trained on the benefits of environmentally focused business strategy. The company should emphasize the effective implementation of such business strategies (Kyro, 2015: 262). The companies need commitment from all the employees to ensure environmental sustainability within the organization. An interesting theory is that the Tourism service industries used to be of great concern as they were less environmentally considerate and they were even called, “silent destroyer of the environment,” but now many restaurants and hotels, due to increased competition and harsh government regulations, are using environmental protection as a differentiating strategy in the market. Sustainability depends on the implementation of strategies that align with global expectations and that will sustain the business over the long term (Kyro, 2015: 265). The study revealed that environmentally cautious strategies improved brand image and created a competitive edge for the business, while costs may be reduced and efficiency in service delivery increased, by monitoring of inputs (Kyro, 2015:271). Ecopreneurship contributes to successful long-term sustainability of any business and is a vehicle for social change. Long-term sustainability should be a focal point of fine dining restaurants to survive the changing environment. Being an Ecopreneur or Entrepreneur both require creative and innovative thinking to meet the ever-changing market needs and to achieve competitiveness.

## **2.3 Creativity and Innovation**

### **2.3.1 Entrepreneurial innovation**

The water crisis is threatening the survival of the businesses that rely on water for survival worldwide. This problem requires innovative thinking or businesses will suffer the consequences. Being innovative is to think of new ideas, whereby new information emerges and products are actualised to meet consumer needs (Bjerke, 2007:17) (Von Stamm & Trifilova, 2009:446) (Rwigema & Venter, 2014: 65). Successful innovation is an important aspect of business development (Van Aardt & Bezuidenhout, 2014:6) (Drucker: 1994). Entrepreneurs use change as an opportunity to create different businesses or services. In every successful venture a true champion is found who believes in the idea and is determined to make it work (Von Stamm & Trifilova, 2009: 229). The most powerful socio-economic innovation tool is to promote entrepreneurial sustainability that will aid responsibility towards the eco- environment for future

benefits (Von Stamm et al., 2009: 446). Furthermore, Piperopoulos (2018:5) agreed with Van Aardt and Bezuidenhout (2014:6) that Innovation is the process of continuity and transformation of entrepreneurs through focusing on opportunity realized or needed that is temporal. Piperopoulos (2018:5) further stated that to remain competitive in the volatile market, businesses are obligated to create new strategies, new products, and new ways of manufacturing, distributing, and selling. Innovation involves implementation of improved new organizational methods for business practices and workplace organization intending to increase business performance by including reduced administrative costs or transaction costs. Innovation activities incorporate scientific, technological, organizational, financial, and commercial ventures (Piperopoulos, 2018:7-8).

In this study, the researcher explored this vital tool by determining innovative ways used by fine dining restaurant entrepreneurs for their businesses during the water crisis in Cape Town, Western Cape, to survive in the long-term. The innovative restaurateurs of fine dining restaurants had to think of new ideas, adopt and implement improved ways to operate their businesses strategically to survive the trying times of the water crisis pandemic and to remain competitive in the constantly changing environment. The question guiding this study is to determine the effectiveness of the strategies implemented by fine dining restaurants due to the water crisis for long-term survival.

### **2.3.2 Entrepreneurial creativity**

Being innovative goes hand-in-hand with creativity. True entrepreneurs do not just think of ways to solve the problem, but they implement ideas through creative measures. The study aimed to determine the effectiveness of the newly created strategies adopted by fine dining restaurants in the Cape Town Metropolitan area due to the water crisis, to determine whether the new strategies implemented would assist restaurants to survive in the long-term. According to Van Aardt and Bezuidenhout (2014:42) creativity is the process of developing and implementing new ideas that are both novel and useful to address a gap in the market. The water crisis in Cape Town required creativity to survive the environmental changes that were affecting businesses that rely on water for survival. Furthermore, new ideas emerged to create new products or services by entrepreneurs to address the gap in the market presented by the water crisis.

Creativity involves skills that are learned and developed, which depends on the organized application of correct tools (Piperopoulos, 2018:6). Bjerke (2007:17) simply referred to Creativity

as implementing a new idea. Tangible results of corporate creativity are vital for long-term survival and success of a business. Creativity involves businesses introducing new solutions or approaches to old problems (Rwigema & Venter, 2014: 65). To address the water crisis issue in Cape Town, Entrepreneurs had to come up with new ideas or new solutions, since it was no longer business as usual. Creativity plays a vital role in business sustainability by ensuring that all employees at all levels are involved in creative activities implemented by the business, as this aids or guarantees sustainable results. In this study the researcher investigated the creative methods implemented to manage the fine dining restaurants sustainably amid the water crisis challenges for long-term survival. Strategies were created and strategically implemented by the entrepreneurs for fine dining restaurants and communicated to all business personnel. The beautiful city of Cape Town relies on Tourism for its survival.

## **2.4 Tourism and Hospitality in Cape Town Metropole**

Tourism has contributed R402bn or 9.3% of South Africa's GDP and it is anticipated to grow to R412.2bn (9.4%) in 2017 (Bizcommunity, 2017). Tourism is an important economic growth sector in the Western Cape and is the biggest employment creator in the province. For tourism to generate income, service providers such as restaurants, hotels, and attractions need to focus on service excellence and customer satisfaction to ensure competitiveness and business growth. The South African fine dining restaurants play a vital role in creating a tourism experience. Both hospitality and Tourism cannot operate in isolation, as one cannot function without the other for the benefit of the visitor's experience. Around 10 million estimated tourists visited Cape Town in 2016, drawn by iconic sights like Table Mountain, its long sandy beaches, and nearby wine farms. Tourism accounted for an estimated 9% of South Africa's economic output per year, or R412billion (Reuters, 2018). There is no doubt that the knock-on effect of the water crisis that the city has found itself in has had an impact on tourism businesses (Reuters, 2018).

The restaurant businesses in the Cape Town CBD are heavily reliant on the influx of tourism during the summer season and the months of November-April 2017/2018 were challenging, as they did not provide the business known for this period of the year, potentially because of the city's water crisis (Oteng, 2018). Two years after the identification of a chronic drought threatening to leave the city of Cape Town without water, affected tourism visitor numbers within weeks and knocked- down an economic bright spot (Eyewitness News, 2018). The knocking economic effect

in Tourism is a major problem, as this could lead to job losses. Many businesses failed between November 2014 and June 2015 in Cape Town, but the businesses that successfully survived the water crisis had to build dynamic capabilities that will maintain with them for the long-term (Parker, 2018). According to Mail and Guardian (2019) there was a decline in South Africa's gross domestic product by 3.2% during the first quarter of 2019. The decline is an indication of the largest economic drop in 10 years. The massive decline in the economy believed to be mainly due to load shedding and the water- crisis. The main sectors contributing to growth decline were the manufacturing sector by -8.8%, mining -10.8%, and agriculture -13.2%.

The agricultural sector is the main supplier for the food and hospitality industry causing a knock-off effect on the financial performances of hotels and restaurant businesses. The researcher was interested in investigating the effect of the water crisis on fine dining restaurants in the Cape Town Metropole with the view that had to implement new strategies to survive the water crisis, and the study determined the effectiveness of these strategies for long-term survival.

The fact is that the water crisis is a long-term macro-environmental threat for entrepreneurs that rely on water for survival. According to Tengeh (2016:203) businesses require bold entrepreneurial drive and resilience in a volatile business environment. Restaurant entrepreneurs require effective planning and creativity to run businesses in the future as Day Zero almost left some businesses in Cape Town on the verge of closing down.

#### **2.4.1 Hospitality and sustainability**

The hospitality industry involves the welcoming of guests / visitors through anticipating their needs. The restaurants and hotels as the major hospitality-leading sector in Cape Town are obligated to ensure visitors' or guests' satisfaction without jeopardizing the environment.

The study by Van Rensburg (2015:1), aimed to establish the direct link between the newly implemented environmental policies and profit gain in Hotels, revealed the new program called environmental management that requires current businesses to monitor their operations regularly and reduce any effect on the environment. The process, also known as the "carbon footprint", has encouraged many hotels to implement new strategies to ensure the reduction of carbon footprint and the damage to natural surroundings. Welter (2012:964) further stressed the vitality of the sustainable restaurant strategy that will respond to the changing consumer patterns. The hospitality industry's sales strategy is through focusing on service delivery, achieving customer loyalty, and meeting guests' needs with the aim of making a profit. Van Rensburg (2015) further

revealed that the Vineyard hotel's focus was on policies that have financial needs in executing the programs that will work towards plans to reduce carbon footprint. The hospitality leaders are aware of the financial sacrifices to ensure environmental preservation that indicates the tension between tourism development and sustainable tourism. The hospitality industry faces challenges that make operating in a tight-margin industry particularly difficult for businesses to survive and among these challenges are the rising costs of doing business as well as food inflation. The drought challenge has a more direct impact in terms of water consumption in the hospitality industry. The implementation of water usage restrictions and usage penalties in some areas, meaning that restaurants relying on water to maintain standards of hygiene and cook the food that they offer, are to be innovative and create effective management strategies for long-term survival.

#### **2.4.2 Restaurant Businesses in South Africa**

South African sit-down restaurants operate in a fiercely competitive environment and customer satisfaction has proven critical for survival in this and other service industries. A satisfied customer spreads positive word-of-mouth returns and contributes to profitability. Cape Town has the third-largest city in South Africa and is the major tourist-focused city that holds about 20% of the country's restaurants (Welter 2012:959). The majority of restaurants located in the city of Cape Town, is a clear indication that there is tough competition for restaurant businesses. To survive, restaurateurs require strategies that will set them apart from competitors. The product affects customer satisfaction, service quality, and by the atmospheric elements present in the service space. It is, however, important to note that having to fight for survival in a competitive environment, the restaurateurs must deal with the problem of the water crisis as well. One needs to determine the extent to which food and service quality and dining atmospherics predict customer satisfaction. Customer satisfaction plays a vital role in the success of any restaurant. It is of utmost importance that the level of service offered to meet the customer exceeds the customers' expectations. The restaurant businesses are generally among the most vulnerable businesses affected by the water crisis and high water tariffs (Darpro solutions, 2015). To survive in the changing climatic conditions, restaurateurs should adapt to the future where water is more expensive and learn to save water for future purposes. The fact is that the supply of water has not increased in line with the growing demand, not only in Cape Town but also in South Africa as a whole.

The water crisis that affected Cape Town has left the city of Cape Town with less visitor numbers and having restaurants to fight for survival. The issue of the water crisis seems to be just the beginning of a bigger threat in the hospitality industry, which forces entrepreneurs to act immediately or face dire consequences.

In the South African restaurant industry, competitiveness has become so fierce that several sit-down restaurants cannot survive or grow and end up shutting down due to loss of customers, insufficient resources, and bankruptcy. The quality of food and service are essential in determining customer satisfaction as well as customers' future behavior towards any particular restaurant. The dining atmosphere viewed as a critical factor that affects customer satisfaction, mainly because customers' response to the environment forms part of their consumption experience. The water crisis/restrictions in Cape Town leave the restaurant customers with concerns about saving water when using the restaurant environment. This matter of the water crisis leads to a reduction in the number of visitors to Cape Town and eventually will lead to a loss in restaurant businesses. During an economic downturn, fewer customers have the financial means and/or willingness to visit restaurants, leaving restaurateurs to compete for a share in a stagnant or shrinking market. According to Petzer and Mackay (2014) restaurant businesses constitute 45% of the income contributors of the hospitality industry in SA. Restaurants therefore should offer the best food and service quality to impress, satisfy, attract, and retain current and potential customers, especially in fine dining restaurants. The question arises on how fine dining restaurants ensure customer satisfaction without worrying about the water consumption / usage during a water crisis. The restaurant entrepreneurs need to achieve a sustainable competitive advantage to survive in the changing market conditions. Fine dining restaurateurs must pay attention to perceived quality in an attempt to meet customer expectations (Petzer & Mackay: 2014). The problem arising with the fine dining restaurants is whether they can maintain their standards amid the water crisis, having to implement strict measures of saving water to ensure their long-term survival.

#### **2.4.2.1 Global perspective on the failure of restaurant businesses**

As stated above, the water crisis is one of the major contributing factors to failed businesses. Tourism.com tattler (2018) stated that poor planning was the main reason for the premature failure of small businesses in South Africa. Tourism.com tattler (2018) further insinuated that restaurant owners lack skills, experience, and resources and they fail because the business owners do not have the skills, experience or resources to sustain business long term. Most of the restaurant



entrepreneurs lack realistic knowledge of the costs, responsibilities, and medium- to long-term requirements of a business. However, as many business owners fail to plan correctly, many entrants do not understand the financial requirements of a business such as the VAT, tax, costing, financial controls, and other obligations that are part of the business mix. Poor calculations of profit margins and cash flow often lead to crippling pressures on the business (Tourism.com tattler: 2018). The threat of the water crisis has led to this study and previous study indicated that poor planning for long-term sustainability led to failed restaurant businesses. The restaurant businesses had to create management strategies to effectively sustain and achieve profit maximization.

Restaurant failures have serious consequences such as loss of employment or shut down and economic corrosion, hence the study was conducted, hoping to assist the restaurant businesses with survival management strategies. The operational aspects of running a restaurant are important to its success. Maintaining operational standards such as hygienic standards and customer-satisfaction prove to be calamitous to the sustainability of any enterprise. The ineffective implementation strategies by restaurant businesses contributed to failure in maintaining operational standards (Nel et al., 2018). In America, there are about 30,000 new restaurant entrants every year, meaning that with a restaurant failure rate of 30% during the first year of operation, 9,000 restaurants fail every year. This is quite a significant number of failed restaurants. The failed restaurants lead to loss of nearly 40,000 jobs per year, plus the loss of invested capital of approximately 3.2 billion dollars per year and consequent significant financial distress to investors and their employees (Nel et al., 2018). The large number of unsuccessful restaurant businesses in America, clearly indicates the need for innovation to attain competitiveness for long-term survival. The restaurant entrepreneurs are obligated to be able to increase profit margins through creating and innovating effective management strategies for long-term survival.

Restaurants also fail due to a lack of clear business goals to guide management and constant changes in management are bad for business. Lack of a clear vision or focusing on a single aspect of the business can be detrimental to the survival of the business.

Another source for the demise of restaurants is poor communication, often taking the form of oral or informal discussion. This relates to internal processes as well as communication with consumers. Another factor is lack of service orientation, dedication to the service industry is a means to ensure the success of a restaurant business (Nel et al., 2018). Restaurateurs should continuously assess their product and service delivery to strengthen clients (Nel et al., 2018).

This study focused on the management strategies of the restaurants to ensure that the costs of water use does not have a detrimental effect on the financial performance of the restaurant.

### **2.4.3 Fine Dining Restaurant Definition**

There are two types of restaurant settings, fine dining, and casual dining restaurants. The study only focused on fine dining restaurants.

Fine dining restaurants refer expensive eating establishments targeting middle to high-end consumers (Simon & Schuster, 2011). The fine dining restaurants are sit-down restaurants with a formal atmosphere and most of them have a dress code. Fine dining formally serves customers, providing the highest quality foods, offering wine lists to help consumers with food and wine pairing. The only difference between fine dining and casual dining restaurants is the price and the ambiance. Fine dining restaurants offer an upscale setting and service while featuring unique and often more expensive menu options (Webstaurantstore, 2019). According to Groupon merchants (2017) fine dining restaurants are usually distinguished by the high quality of three factors: food, décor, and customer service. It is imperative to note that the price that comes with fine dining needs to meet customer's expectations. The fine dining chefs are required to plan their menus to meet customer expectations without forgetting the need to save water due to the water crisis. The water crisis steered some fine dining restaurants towards realizing the importance of preserving water in Cape Town or suffering the dire consequences of harsh water tariffs.

#### **2.4.3.1 Fine Dining Restaurants in Cape Town**

Cape Town is the second largest city in South Africa and has been on the tourist radar for more than a decade. There are over 159 restaurants found in Cape Town alone, offering the best restaurants found in the world, not only this but the city is home to seven of the country's top chefs. Cape Town is where new restaurants open faster than one can envisage (Benatar, 2019). The beautiful Cape Town's fine dining restaurants have many best dishes served. An example of fine dining is the Belly of the beast whereby guests are served five excellent courses as well as bread service, a palette cleanser, and an after-desert delight. When preparing food in a restaurant, often use of water without much thought and stats show that offices, retail, and restaurants are currently using 14.9% of Cape Town city's water (Eat out, 2017).

According to Luke Dale, when dining in one of his five restaurants, visitors get a feel of why South African restaurants featured in the world's best restaurant awards. There is a relationship between

dining and tourism experience in boosting the Tourism industry in Cape Town. The Cape Town Restaurants are still operational and according to Love Cape town (2018) many restaurants have measures in place to ensure that they continue operating beyond the drought period. The question remains on the financial implications tied to the water crisis pandemic and it is a long-term problem. What are the long-term solutions to this problem? According to the previous study conducted about expectations of the international visitors regarding African experiences, each restaurant culture has its own exclusive and distinct ways of preparing and serving food. It is therefore the uniqueness and distinctiveness of the local host cuisine that serves as a tourist attraction to visitors. The visitors are mainly attracted to the restaurants that meet their expectations. Previous studies also revealed that the role of fine dining restaurants in the total tourism experience of travellers affirmed that food service contributes to the overall tourism experience and that it is a major determinant of the quality of a vacation experience for a visitor (Nield, Kazak & Legrys, 2000:376). The issue of the water crisis in Cape Town has raised an alarming concern for visitors to the province and if the problem persists, it will lead to a decline in visitor numbers to the Western Cape Province. If visitors need to use water sparingly it forces the restaurant entrepreneurs to create strategies that will create awareness for visitors and employees about the water-shortage. The strategies created should be sustainable to ensure that businesses do not lose money on water-bills and that there is consistency in implemented water-saving strategies to ensure effectiveness in the long-term. The study determined the effective management strategies adopted by fine dining restaurants to ensure the businesses' survival over the long-term. The study investigated the impact of water-restrictions/ crisis on the financial performance of the fine dining restaurants in the Cape Town Metropole. The travellers' negative experience with the food service of a destination can ruin the overall vacation experience hence it is vital for the restaurant entrepreneurs to ensure customer satisfaction whilst sustainably managing their businesses. The restaurants have a responsibility of using water sparingly by ensuring that they employ the principle to reduce, reuse, and recycle water. The water conservation principle is the solution to the water crisis that affects not only Cape Town but also the country as a whole. The question remains though as to how do the fine dining restaurants in Cape Town survive the water restrictions over a long-term crisis period.

#### **2.4.4. Restaurants' sustainable strategy**

The sustainable development strategy encourages meeting the needs of the present without jeopardizing the ability to meet the needs for future generations. Currently, theory believes that

food processing represents 25% of water consumption worldwide (Baldwin, 2009:1). The businesses focusing on sustainable practices prove to have greater financial success. There are greater rewards for businesses that practice sustainable practices such as lower production costs, improved production quality, increase in the market share, improved environmental performance, and lower risks. The emphasis currently is on the environmental consideration for any business practices to ensure long-term sustainability for businesses (Baldwin, 2009). Agreeing with Venter and Rwigema (2004: 108), to ensure that the businesses comply with the environmental regulations, well-trained employees need diligently follow the business sustainable strategies (Baldwin, 2009:41). Baldwin further supported the R's strategies to reduce environmental impact, re-use, recycle, and recover water usage, further stating that an estimated amount of 50-60% of food process water can be reused (Baldwin, 2009:45). According to Baldwin (2009:45) about 50% of water in full-service Restaurants is mostly used in restrooms, whereas about 80% of the water used in fast food restaurants constitutes a lot of water wasted in these facilities (Baldwin, 2009:234). To reduce wastage in the restrooms requires the use of low-flow toilets or automatic turn-off faucets. It is important to note the traced back about 40% of reported foodborne illnesses to food eaten from a restaurant. This is commonly due to incorrect handling of food during preparation (Baldwin, 2009:235). To achieve sustainability in restaurants, effective strategies in setting up menus, equipment use, water- use, and recycling, needs to be implemented, and to ensure that long-term success is achieved requires staff commitment and staff that have the know-how on why the strategies are executed during the sustainability program. Once the employees are championed in the sustainable program, the customer awareness program should be implemented through education and marketing, achieving this through the use of signage within the restaurants to create awareness, flyers, and websites to educate customers (Baldwin, 2009:236).

The energy reduction used by producing energy from waste is another way of saving energy. The business that manages to develop sustainable strategies to minimize the environmental impact such as climate change, the water crisis (reducing costs, reduce risks and improve reputation) sets the business apart from competitors by achieving a differentiated strategy (Baldwin, 2009:239). Sustainability goals are to do more with less, meaning maximizing the use of resources and building long-term viability (Baldwin, 2009:245). Some restaurants in some of the major hotels in Cape Town had to demonstrate the functioning of their establishment in a manner that saves the environment. The fine dining restaurants have minimum options but to create

sustainable measures to save water or face harsh penalties from the city of Cape Town municipality.

## **2.5 Water crisis**

The increasing levels of the population globally have exerted more pressure on limited high-quality water sources due to high water demands. Another cause of the water crisis is low averages of rainfall and the low capacity level of infrastructure to accommodate the water demand (Howe, et al., 2012:1) (Muller, 2017:13). In general, studies revealed that the unprecedented fast-growing water usage causing the water supply to exceed the water demand, is leading to the water crisis/ shortage (Mehta, 2012:497). The countries affected by the water crisis endure threatened food production, undermined economic development, and harmed ecosystems (Mehta, 2012:499). This study focused on the impact of the water crisis on the financial performance of fine dining restaurants in the Cape Town Metropole.

### **2.5.1 Crisis Definition**

Crisis is a word derived from Greek 'Krisis,' meaning a turning point or decision. Crisis is an event of serious magnitude that disrupts orderly operation and requires immediate un-planned managerial efforts to overcome the problem. Crisis refers to an event that disrupts the pre-existing state of affairs (Laws, Prideaus & Chon, 2007:6). Eyewitness news (2018) referred to the crisis as a lack of sufficient available water resources to meet the demands of water usage within a region. This description of the water crisis denotes a recent outbreak of the water crisis in Cape Town from 2014, creating uncertainties for the future of businesses that rely on water for survival. The businesses that rely on water for survival had to devise survival strategies to ensure profitability for their businesses. Creating awareness and ensuring that the businesses overcome resistance to change from both employees and customers is through communication and training. Regular participation and involvement assist in achieving the desired goal (Venter & Rwigema, 2004:108).

Recent studies revealed that guests are required to use the same cutlery in all the six-course meals. Such attempts have pushed some fine dining restaurants to the brink of closing down as they compromise standards in an attempt to cut costs. The water crisis proved to be an exogenous factor that affected the restaurant businesses because of climate change (Srinivasan, et al., 2012:1). The study focus was on fine dining establishments because the fine dining restaurants have specific qualities to ensure preservation of the five-star standards, having water crisis

challenges proved to be difficult for some restaurants to keep up with the standards and this affected the financial performances of the restaurants.

There were no previous studies conducted on the water crisis for fine dining restaurants in Cape Town. Welter's (2012:959) study on the sustainability of the restaurant industry revealed the growing demand for water in Cape Town due to factors like urbanization, agriculture, and tourism. The study revealed water utilized wastefully as only 7% of the portable water is recycled proving to be insufficient and a large amount of water was lost to leakages. Furthermore, the study confirmed that there was an urgent need to utilize water in South Africa in a more sustainable manner. Welter (2012: 960) emphasized the need for Restaurant businesses to employ the principles to reduce, reuse, and recycle for water conservation. This done by fitting and installing water-saving kits such as low flow heads on dishwashers, taps with aerators and timers, water-saving restrooms, grey water use as well as customer awareness policies, etc. This study unpacked the role of the fine dining restaurant businesses in preserving water to sustain their businesses since water-shortage is a long-term problem. The study investigated the business strategies implemented by fine dining restaurants during the water crisis and determined the impact of the water crisis on the financial performances of the fine dining restaurants. The businesses that rely on water for survival must ensure survival without jeopardizing the environment considering the rules and regulations of the Kyoto Protocol.

### **2.5.2 Kyoto Protocol**

The earth summit held in Rio de Janeiro in 1992, whereby a drafted and signed framework on climate by 154 countries including South Africa, agreed to prevent dangerous warming from greenhouse gases (Africa Geographic, 2007:59). As if the 154 nations' agreement was not enough, the nations met again in 1997 where the Kyoto Protocol was established, consisting of legally binding emission cuts especially by well-developed nations (Africa Geographic, 2007:59). The Kyoto Protocol is an international treaty that commits State Parties to reduce greenhouse gas emissions (Africa Geographic, 2007:59). The greenhouse gases released into the atmosphere contribute to climate change (Welter, 2012: 957). The convention agreement, the Kyoto Protocol, increased strict environmental regulations and has motivated many businesses to take into consideration the environment and emission of gases when deciding on the business practices, for environmental protection and to improve business activities (Kyro, 2015:260). The climatic changes lead to environmental disasters like the water crisis as experienced by many

countries globally. Cape Town in South Africa is going through a climatic change instigating a water crisis that forced many businesses to find new ways of survival to achieve long-term sustainability. The problem of the water crisis is the global challenge that the study seeks to investigate.

### **2.5.3 Global Perspective on water crisis**

The previous studies revealed that about 14 of the world's 20 megacities are experiencing a water crisis or drought. These include countries such as Mexico, Chile, South Africa, Brazil, Sri Lanka, India, China, Australia, Israel, California, Morocco, Indonesia, Kenya, Namibia, and Botswana (Hedden & Cilliers, 2014:1). About 4 billion people live in countries with severe water shortages and half of these people live in India and China (Mehta, 2012: 497). The water crisis is ranked as the third most concerning global risk and according to the World economic forum currently poses a major threat (Hedden & Cilliers, 2014:1).

Brazil with a population of 20 million in 2015 had to turn off the water supply for at least 12 hours a day, the country faced Day zero, forcing many businesses and industries to close down (Hoekstra & Mekonnen, 2016).

Mareng and Cuartas (2016: 259) stated that a water crisis occurred in Brazil in 2014 due to a massive increase in the country's population from less than 2 million in 1940 to almost 20 million in 2014, increasing the high demand for water. The other factors that led to the water crisis in Brazil were climate change, low precipitation, and high temperatures that increased evaporation as well as poor quality infrastructure (Mareng & Cuartas, 2016: 252). Brazil's water-shortages in 2015 left the country's water storage levels at only 5%. The summer of 2014, was the driest in Brazil affecting the Cantareira reservoir system, which is the main and largest water supplier, leaving 40 million people at risk because the rivers feeding the Cantareira system were extremely low since 2014 and continued to remain low in 2015 ( Mareng & Cuartas, 2016: 253).

Major Cities such as California, Melbourne, and Baja California Sur have all faced water challenges (Dolnicar & Hurlimann, 2010:43-53); ( McEvoy, 2014:518-54); ( Howitt, MacEwan, Madellin-Anzura, Lund & Summer, 2017:7). In 2008, Barcelona in Spain had to import fresh water from France due to a severe drought. California has recently suffered water restrictions for 4 years forcing the city to shift its agricultural production to use less water by increasing the re-use of wastewater from 15%. In 2014-2015, Sao Paulo with a population of 12 million people, came to Day Zero when the water crisis hit the city of Brazil. The other countries hit badly by the water

crisis for more than a decade are Beijing, New Delhi, Mexico City, and Las Vegas (news24, 2009). This is a clear indication that water shortage is the real problem in the world as most countries have been badly affected by it, as well as the businesses. The remaining question is at what extent / level is the fine dining restaurant businesses financially hit by the water crisis. If so, what are the restaurant entrepreneurs doing about the matter?

Briefing (2009) suggested that an estimated 50 000 water supply points have effectively died in sub-Saharan Africa (Ghana, Burkinafaso, Mali) due to lack of maintenance (Briefing, 2009). Brazil, with a population of 20 million in 2015, had to turn off the water supply for at least 12 hours a day, the country faced Day Zero forcing many businesses and industries to close down (Hoekstra & Mekonnen, 2016).

Sri Lanka in 2004 severely affected by a Tsunami due to climate change, with rising water levels, eroding beaches that led to a massive disaster (Glass, 2010). In 2015, Yemen estimated to be on the verge of running dry due to a water- shortage because Yemen had no dams built as catchment areas for rainwater (Baba, 2010). The situation in Yemen created conflicts due to the inadequate water supply and the businesses suffered, as they could not produce food from farming, there was a decline in Tourism, and health issues. In Indonesia the climate change due to emission of green-house gases and drought that hit the country in 2009, left the country with typhoons, forest fires, and floods. In 2007 Jakarta suffered a great deal from the water crisis. China faced with dual problems of water shortage and floods but is also facing water pollution and salinity.

India's water shortage is predominantly the result of extremely poor management, corrupt government, unclear laws, industrial and human waste causing huge quantities of pollution and rapid population growth (Mehta, 2012: 500). India is also suffering severe water shortage due to unevenly distributed rain with an average of 120 cm a year (Rodell et al., 2009:999). The American water law of 2007, declared government ownership of all surface and underground water, irrespective of whether it is on private or public land (Mehta, 2012:500). Furthermore, the significant low rainfall in most parts of India caused recurrence of drought every five to six years (Narula, et al., 2011:3).

Australia is one of the major food-producing countries, from 2001-2006 the country suffered a decline in production of rice and cereal by 40% due to the water crisis. The water crisis in Australia



was a result of a significant decline in rainfall and excessive water allocated for the irrigation crisis (Hanjra & Qureshi, 2010).

South Africa is a water-stressed country and has 7 million people with no access to drinkable water, especially in rural areas. The major problem in South Africa is thermoelectric power generation as the large driver of industrial water demand. Many power-generating stations are located in water-stressed areas resulting in overexploitation of water and potential contamination from industrial activities (Donnenfeld, et al., 2018). In China, more than 300 cities were running short of water in 2007 after Wuxi, Jiangsu province of China suffered a massive bloom of toxin that produces cyanobacteria called *Microcystis*. The bacteria contaminated the fresh drinking waters from Lake Taihu, leaving two million people without drinking water for at least a week (Bo-Qiang Qin, 2009).

Cape Town in SA with a population of 4 million confronted with a water crisis that threatened many businesses. This is a clear indication that the water crisis is not only Cape Town's problem but also a global problem that requires special consideration by businesses that rely on water for survival. According to the Water Management Institute, the reality is that about 450 million people in 29 countries globally, face severe water-shortage. According to Hanjra and Qureshi (2010) in 2025, two-thirds of the world's population will suffer from a water crisis. The worst is yet to come, as most countries are showing significant signs of water shortage and the worst drought expected in 2025 will be due to increased demand in agricultural, domestic, and industrial water- use (Hanjra & Qureshi, 2010).

The global trend on the water crisis is a clear suggestion for adaptation and implementation of proactive measures to avoid situations such as Day Zero. The study focused on fine dining restaurants by determining the effectiveness of the business management strategies implemented to survive the environmental changes in the long-term. This research considered important to learn about the water crisis survival strategies employed in other countries especially the developed countries.

The study revealed that the water crisis had affected fine dining restaurants, but the extent of the impact depended on the findings of the study. According to FA (2018) restaurants, nurseries, swimming pool installers, and car washes are obvious examples of sectors that are feeling the brunt of the water-restrictions. The other industries like food, beverages, tourism, mining, wine,

power generation, and construction are also suffering due to the water crisis. Agriculture is one of the hardest hit, with factories closing down, less planting and harvesting, leading to major job losses. It is important to note the impact on the agricultural sector, since the food price will increase forcing the food industry such as restaurants to increase their prices making it difficult to afford dining at restaurants. This alarming challenge is the reason this study is crucial so that the impact of the water crisis on fine dining restaurants can be determined. Cape Town is the heart of South Africa's wine producers that exported 113 million gallons, amounting to 428.5 million liters of wine, to Europe and the United States of America in 2016 (world water council, 2018). This indicates the amount of water used to grow and process the grapes used to make wine. The water demands for the businesses threatened severely by the water- crisis. According to Hoekstra and Mekonnen (2016) managing the water crisis definitely requires water management strategies. Mckinsey and company (2009) affirmed that water efficiency use is a long-term requirement to stay in business and a big commercial.

The study conducted by Le Roux (2017) revealed that an increase in the price of water created negative reactions as many organisations acknowledged the 'real value' of water and were pro-actively attempting to use it efficiently, but the usage-level of water for restaurants was not established. The companies in SA are generally not in possession of sufficient resources to understand completely the extent of the impact of the water crisis on their future business performance. Therefore, this research conducted to provide an understanding of the fine dining restaurant entrepreneurial status. The water shortages and compromised quality of water intensifies all other major risks facing businesses such as unemployment, food insecurity, poverty, inequality, energy shortages, and migration. Due to the water shortage's major risks, the consequences are very difficult to predict and to navigate (Le Roux 2017). The study sought to uncover the impact of the water crisis on the financial performance of fine dining restaurants.

Mckinsey and Company (2009) stated that it was essential for businesses to stay up to date with issues related to the drought and to revisit consistently their risk management strategies, to ensure that they make provisions for water shortages for long-term survival. It should not be business as usual, as businesses need to implement ways of saving costs resulting from the water crisis.

Parker (2018) and Sage (2017) confirmed that many businesses in Cape Town suffered a great deal due to the water crisis, as about 71% of small businesses faced pro-longed power interruptions that occurred daily in such a way that some businesses ended up closing down. Sage (2017) further discovered that high municipal water-tariffs, due to water restrictions and

penalties on small businesses due to excessive water usage, could do serious harm to the profitability of the businesses. The above statement confirmed the reason why there was a need for this study. This calls for innovation, effectiveness, ideas, and equipment presenting reasonable low-cost strategies to optimize water usage (FA NEWS, 2018). The fine dining restaurants should have revisited their risk management strategies to ensure that as entrepreneurs they protect their businesses to be resilient in any water crisis disruptions in the future.

### **2.5.3.1 USA state of California**

As comprehended throughout this study, the water crisis is not a pandemic that affects South African restaurants solely, but other countries as well like California. The study conducted by QSR (2012) on the water crisis in American restaurants confirmed the above statement and gives a clear view of the water crisis. QRS (2012) insinuated that water shortage plays a significant role in the decline of any country's economy due to the impact it has on factors like supply chain, reliability, food shortage, quality foods, and food price. Research conducted by the Environmental Protection Agency in the United States of America, estimated that food services and hospitality utilised about 11 % of the total water consumption of which the biggest water use was in the kitchen, operation equipment, food preparation, restrooms, and cleaning. Finweek (2018) stated that California, one of the largest states in America with a mild climate and taking pride in the farming business, suffered water crisis challenges. Howitt, MacEwan, Madellin-Anzura, Lund and Summer (2017:7) further stated that due to the drought in the state of California in 2015 leaving a significant impact on the agricultural sector, led to an estimated 21 000 job losses. The drought led to the loss of 902 million dollars in gross crop revenues, 250 million dollars for dairies, and 100 million dollars for other livestock. The 2015 enormous five-year drought in California resulted in water cuts for farms and urban areas, costing the state's economy an estimated 2.7bn US dollars. New Republic (2018) stressed that the water shortage in the United States of America was not just an environmental problem but the daily demand for water affected availability in the future (New Republic, 2018). The main cause of water shortage in 2015 was due to the little snow that usually falls in springtime from the California Sierra Nevada Mountains and melts down, filling up the rivers and reservoirs of California. The water shortage created a massive problem for restaurant businesses in California as farmers were increasing their prices due to the decline in production. This indicates the crippling effects of the water crisis on the economy. The price of food, like tomato and lettuce, increased between 13% and 17%. The State of California's restaurants mostly relies on processed tomatoes produced by the local farmers to prepare menus using salsa, ketchup, tomato sauce, tomato soup, and any unprocessed tomato foods (QSR,

2012). The water crisis clearly indicates that it is an ongoing situation and nothing one can do to stop it but restaurant businesses can strive to stay in business by constantly devising ways of business management. The challenge at hand needs pro-active thinkers, to be creative and innovative to derive strategies that sustain the businesses in the long-term.

The water crisis affects the supply chain because the suppliers incur the costs in production leading to increased operational costs. When operational costs rise, restaurant owners have no other alternative but to increase the menu prices. The price increase affects consumer-dining capacity or decreases sales in restaurant businesses, meaning that price increases on commodities definitely affect restaurants. This financial impact hypothesis on restaurant businesses is what motivated this study. The researcher hoped to find ways to assist the restaurant business to respond effectively and responsibly to the water crisis. The future of restaurant businesses amid the water crisis is bleak unless the entrepreneurs implement new business strategies that are effective to survive.

#### **2.5.3.2 Suggested strategies to curb the water crisis in California**

The water crisis has hit the Californian restaurant businesses in such a manner that an interesting statement made by the department of labor to have proposed, known as the tip-pooling rule, which allows the restaurant owners to take the workers tips because owners believe that they know how to best distribute the tips money (QSR, 2012). California has addressed the issue of the water crisis by drilling for untapped water reservoirs underground, proving to be a very expensive method. According to QSR (2012), the majority of businesses that rely on water to operate their businesses had to find ways of maintaining their businesses in a cost-effective manner. Miller (2015: 69) affirmed that the use of recycled water could save a great deal, including desalination, aquifer storage, and water recovery.

The one strategy used to fight price increase is through diversifying the supply chain. The use of organic suppliers is another way to save costs for restaurant businesses. A signed agreement by consumer goods production companies and cleaning product producers including Coca-Cola, Nestle and Unilever to commit their companies to use water responsibly called the CEO water mandate also known as the Voluntary United Nations initiative (QSR, 2012). This strategy proves that many companies are venturing into sustainable entrepreneurship to survive the ongoing

challenges as result of climate change. The restaurant businesses needed to investigate new and sustainable ways of running their businesses.

QSR, (2012) revealed that companies that had just installed a 75 US dollars spray valve for their washing machines could save the restaurant a great deal of water money. Bon Appetit in America has implemented a low carbon program aimed at reducing water usage, this program requires each manager in the company to do audits of their energy and water usage and to implement measures to conserve water. This strategy commits the employees to water conservation. Another mechanism adopted to save water in the coffee bars called Starbucks, was to avoid water running constantly. The simple signs in the bathrooms create awareness to consumers at the restaurants about using water sparingly. Water use affects restaurants' operating costs extensively (Darpro, 2015). Dapro revealed that restaurants that implemented water-efficient practices decreased their operating costs by roughly 11%, energy by 10%, and water use by 15% (Darpro, 2015). PG and E (2017) added that water conservation was paramount to sustainability especially for restaurants that make conservation a priority. It can also lead to increased profitability for restaurant businesses. Mckinsey and company (2009) asserted that there is a need to close the gap between supply and demand all over the world by installing efficient water-productivity improvements, but this could cost an estimated 50 -60 billion US dollars annually over the next two decades. The idea to build desalination plants, drill deep wells, and transport surface water could be extremely expensive in developing countries that are already suffering water-shortages, like China, India, and South Africa. Consistency in ensuring elimination of water-waste and putting policies and procedures in place to ensure that customers and employees abide by them is the key sustainable restaurant strategy. PG and E (2017) believed that following water-saving strategy implementation in any restaurant increase profitability and long-term sustainability.

The following are the key strategies to save water for restaurant businesses by PG & E (2017). The businesses can start by fixing all the leaks on all faucets. The use of low-flow pre-rinse spray nozzles deemed useful in saving water. The business can also install low-flow aerators, use air-cooled ice machines and conduct scheduled assessment of water-use arrears, up-grade dishwashers at a reduced cost, water broom installation, and education of employees to create awareness regarding water-savings.

Considering the water- saving strategies suggested above for the restaurant business, It is important to note that spending money on implementing these strategies proves to be cost-

effective and affects the bottom- line of any restaurant business. The weather forecasts predict more water crises around the globe by 2020 (Miller, 2015: 71). The water crisis is a long-term problem that requires long-term sustainable business strategies. Using water efficiently is the only and cheapest solution to the ongoing water crisis for any firm, to ensure long-term survival.

### **2.5.3.3 Islamic Republic of Iran**

Iran, the second largest country in the Middle East with an estimated population of 77 million has experienced a serious water crisis and the government is attributing the crisis to climate change, due to frequent droughts and international sanctions. The reality, according to Madani (2014), is that drought in Iran is the result of the rapid population growth, the population in Iran has drastically increased since 1979 and it was 35 million after the revolution. In 2014, the population of Iran had doubled and more than half of the population is under 35 years old. Population growth plays a major contributing factor to the water crisis in Iran.

Madani (2014) believed that mismanagement of water use is another factor that promoted the water crisis in Iran, Iranians use more than 250 litres of water per person per day, and in some urban areas water consumption can exceed 400 litres per person per day. The country of Iran lacks water resources, and infrastructure to improve the water supply. The migration growth of the population from rural to urban areas is a major cause of over-population in the cities leading to increased demand for water usage.

The case of Iran is a clear indication that the water crisis exacerbated due to lack of water-management control practices by the country's population. This is not only a problem in Iran but also the majority of countries that suffer from water crises are required to create control measures to avoid water waste. To prevent water waste the government must increase water and energy prices to reflect the true cost of water and energy (Howe et al, 2012: 4). The price increase on water negates and positively impacts businesses, the positive impacts are that the water crisis forces water- users to implement water-saving strategies to avoid high water tariffs, and on the negative side, the poor water-users that cannot afford to pay the high water rates, suffer. The water crisis in Iran is similar to that of developing countries like South Africa, due to lack of water – management infrastructure, both these countries are suffering from the water crisis.

#### **2.5.3.4 Republic of South Africa water crisis**

Like the other countries in the southern hemisphere, South Africa is the 30th driest country in the world and water is a major constraint to development (Hedden & Cilliers, 2014:2). The rainfall per m<sup>2</sup> in SA is between 300-500 mm during one year, this is much less than the worldwide average. In addition, there is an uneven distribution of rain due to seasonality and there is more rainfall in some regions in comparison to other regions. The clouds usually are stuck in the eastern mountain ranges resulting in less rainfall in the western regions (African blue tours, 2018).

The African sub-region classified as a semi-arid zone and receives irregular and lower than average rainfall coupled with a high evaporation index. In SA unevenly distributed rainfall, in such a way that some regions receive less than 100 mm per annum on average. Greater attention required for water management as water proves to be a growth constraint (Hedden & Cilliers, 2014:7). There is therefore an urgent need to utilise water in South Africa in a more sustainable manner (Pegram & Baleta, 2014). The theory presented by the National development plan 2030 states that the water crisis in South Africa will worsen as 98% of the water in the country is considered fully allocated “meaning that my child and your child that is being born tomorrow has only 2% of water for use going into the future” (Hedden & Cilliers, 2014:1). Donnefeld, et al (2018) made it clear that South Africa is currently overexploiting renewable water resources in such a way that the country’s water infrastructure is in a poor condition and dam levels are low. That is how bad the situation is in South Africa currently. The water shortage problem in South Africa is accompanied by a need for economic growth and development, because millions of people are unemployed, leaving the country with high levels of poverty. This problem puts a lot of strain on businesses to fight for survival. Regarding South Africa as a water-scarce country, the International futures model revealed that by 2035 the overall forecast is that demand for water will increase due to population growth, urbanisation, rising income, irrigation expansion, non-renewable electricity generation and growth in the manufacturing sector (Donnenfeld et al., 2018). The dam levels have been dropping in the Eastern Cape and Kwazulu Natal to about 50% putting South Africa on the radar of the water- shortage/ crisis.

The restaurant businesses in South Africa faced many challenges, but there is at least some cause for optimism. Bizcommunity (2017) revealed that travel and tourism contributed R402 billion, about 9.3% of South Africa’s GDP, and anticipated growth to R412.2billion (9.4%) in the

GDP at the end of 2017. Restaurants play a significant role in the overall tourism experience of the country. The hospitality industry hitches make operating in a tight-margin industry particularly difficult. Among these challenges are the rising costs of doing business, with food inflation. The drought in South Africa has a more direct impact in terms of water consumption. Water usage restrictions and usage penalties instigated in some areas by the Cape Town municipality meant that restaurants relying on water to maintain hygiene standards and to prepare menus were not operating within the usual structures of 'business as usual,' while trying to make their contribution to the economy of South Africa (Bizcommunity, 2017).

In addition, there are typical concerns that face the industry including high staff turnover and skills shortages, bad debts, cash-flow constraints, and the need to adapt constantly to consumer needs and expectations. A large number of Retail Capital clients are in the restaurant businesses, and from a vantage point of supporting these businesses through their financial challenges, there are key areas that those in the hospitality industry need to focus on to ensure their businesses survive the challenging hospitality environment. The survival strategies by restaurant businesses involve keeping up with innovation in the hospitality industry such as the role of technology. The restaurateurs need to start from a day-to-day running of the business perspective, creating awareness about hidden costs is critical, including the staff complement. Training staff well and consistently over time, motivating the staff and providing excellent levels of customer service and convenience are important factors. Taking into account the little extras for the customers is vital (Tourism.com tattler, 2018).

The creative solutions for the government, businesses, and residents are to work towards ensuring that Cape Town remains the most exhilarating place to visit (Love Cape Town, 2018). The study seeks to explore the creative solutions implemented to curb the water crisis by the fine dining restaurants in the Cape Town Metropole. South Africa as a water-stressed country already has 7 million people with no access to drinkable water, especially in the rural areas. Cape Town with a population of 4 million faces a pandemic that is threatening many businesses to close down. The city hopes to solve this problem by building desalination plants and introducing water sources to draw water from the ocean, which proves to be more costly. Hoekstra and Mekonnen (2016) stated that Cape Town with a population of 4 million only re-uses 5% of wastewater, whereas Israel re-uses 85% of their wastewater proving that a lot still needs drastic action in Cape Town to create more water-consciousness. Donnerfeld, et al (2018) confirmed that 40% of South Africa's wastewater was untreated which could be re-used and contribute to saving during the



crisis. Although drought is inevitable, the greatest mitigating impact is by employing effective management strategies.

This clearly indicates that the water crisis is real and very challenging situation that needs special consideration and indeed businesses need sustainable strategies to avoid the inevitable impact on the financial performance of their operations. The study focus was on the fine dining restaurants in Cape Town. According to the study conducted by Welter (2012:960), to achieve water balance is through aggressive efficiency control measures that require a collective effort from all stakeholders (Donnenfeld et al., 2018). Restaurants can move towards sustainability by employing strategies around reducing and re-using waste, re-using water, and reducing water usage. Finweek (2018) stated that drilling boreholes to compensate for drought was not a sustainable solution but taking steps to improve water infrastructure by plugging leaks, constructing new storages, introducing new technologies, and introducing better management was the key to water-saving strategies. The new technologies, like desalination plants, are not a complete answer to the world's water scarcity challenges either, but a most expensive process which requires a huge capital outlay which raises the cost of water and requires a great deal of energy (Finweek, 2019). According to Hidden and Cilliers (2014: 8) water consumption in South Africa was higher than in most countries and this requires a major behavioral change in the way consumers use water. The best way for South Africans to avoid having to incur harsh water tariffs is to implement effective measures that will ensure conscientious water use (Donnenfeld et al., 2018).

#### **2.5.4 Cape Town Metropole water crisis**

Cape Town is located at the tip of the Southern African continent and is the second-largest city in South Africa. The majestic city of Cape Town surrounded by the Atlantic Ocean on the south and by the Hottentots Holland Mountain range to the east (Hylton, 2001). As discussed previously the Western Cape Province believed to be a region of water scarcity with a mean rainfall of only 348mm and a high variability in its mean annual rainfall (Jansen & Schulz, 2006:7). Most rainfall occurs during winter in Cape Town, while the period October to March is the dry season forcing the City's authorities to restrict water usage by 30% (Jansen & Schulz, 2006:7). The city of Cape Town was confronted with the fear of closing down some of the fine dining restaurant businesses due to the water shortage that built up over a period of 4 years since 2015 (Muller, 2017). According to the South African weather services, the rainfall network has declined on its seasonal rainfall between 2014/2015 and 2015/2016 seasons were not far below normal and then in

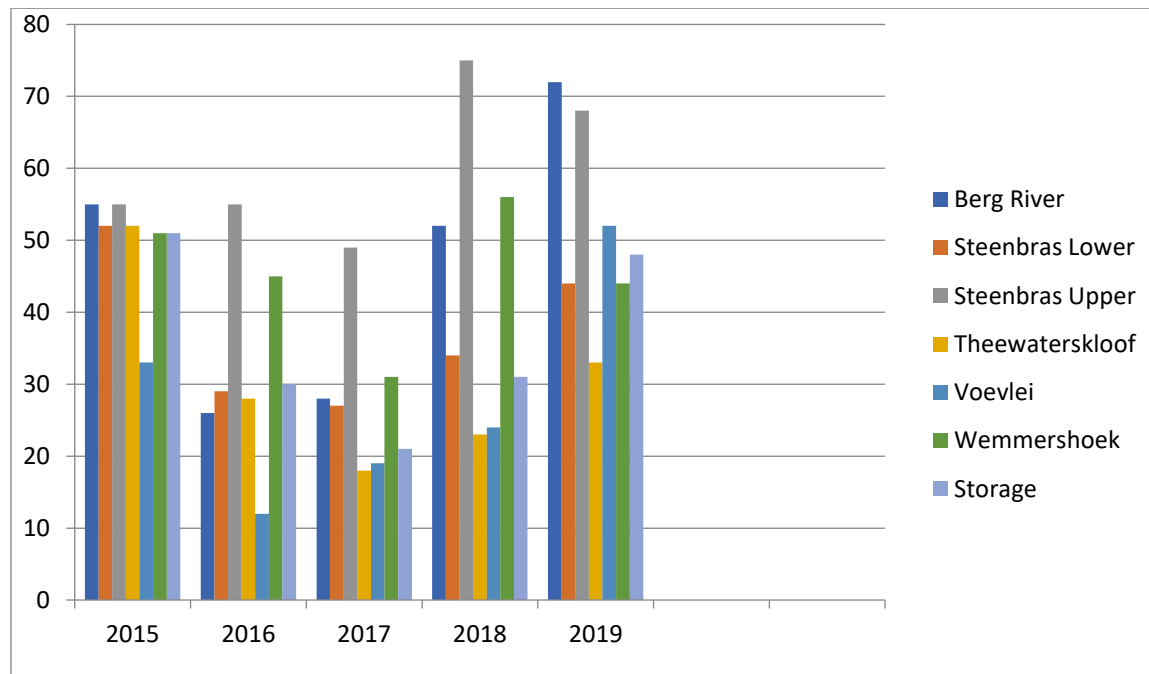
2016/2017 there was no rainfall. The rainfall was below 75% contributing to the city's worst fear from both businesses and residents at large (Muller, 2017).

In January 2016, the city introduced level two restrictions meant to limit water users by reducing water usage by 20% except for the agricultural sector. In January 2017 Cape Town's six dams supplying Cape Town with water were reported to be at 42%, down from 51% the previous year. The city then intensified the water restrictions to level 3, with a 30% reduction targeting gardens, sports fields, and parks which could only be watered twice a week. The Theewaterskloof dam, the largest water supply to Cape Town was at 17.5 % in 2017, which left Cape Town citizens despondent about the situation. In 2018 the water situation worsened and the restrictions intensified even further to level 6b, which meant that 50 liters were allocated per person (Donnenfeld, et al, 2018) and the tariffs for water- bills were increased. The hike in water tariffs for businesses increased from R26 to R40 per liter. Le Page, (2018) reported that some theories believed that the water- crisis situation in Cape Town was worse due to the probability of global warming, although there was no clear evidence of this. The scientific theory stated that the warming of the earth is increasing water losses from evaporation, meaning less water is reaching the taps even if rainfall is continuous (Le Page, 2018). The situation caused some businesses to be gravely concerned which left panic erupting as some threatened to leave the city of Cape Town until the water crisis was over (Le Page, 2018).

#### **2.5.4.1 Determinants of the water crisis in Cape Town**

The Western Cape considered a water-scarce region and the below graph depicts the situation on dam levels during the water crisis in Cape Town. The average Dam storage levels in 2015 were 50,7% followed by 2016 when there was a massive decline to 29.1% that stunned the whole country and that did not end there because in 2017 dam storage levels were 20% (city News, 2019). This created panic amongst capetonians and the city was nearing Day Zero causing Cape Town to intensify the water restrictions to level 6b, meaning a person was allocated only 50 litres per day per person and those that do not abide by the rules were subject to punitive tariffs. The Dams' storage levels in 2018 were still averaging 32% as the drought was intensifying and the commercial properties had to reduce water usage by 45% and businesses had to implement new water-saving strategies to keep doors open. By 2019, the Dam levels were around 49% showing a little relief and the city could see there was an increase in dam levels and the rainfall seasons were back to normal. The water crisis was a clear indication of an inevitable situation that required

proper planning and proactive measures in a changing environment. Furthermore, the city's water crisis seems to be an ongoing problem due to increased water demand. A study conducted by the department of water and sanitation indicated that Western Cape water supply systems' requirements would exceed the current water supply by 2022 (Muller, 2017). The above statement can only be a motivation for some restaurants to innovate and adapt new strategies to sustain the businesses for long-term survival. The restaurants' new methods could influence how sustainable these new methods would be (Quartz, 2018).



**Figure 2: 3 Storage Dam Levels in Cape Town- 10<sup>th</sup> June 2019** (City News, 2019)

The above figure clearly indicates that the dam storage levels were very low between 2016 and 2018 leading to unnecessary panic in 2019. One wonders, why Cape Town waited until the announcement of Day Zero before planning to put measures in place to curb the water crisis. This is not representative of a true entrepreneur because a true entrepreneur uses planning as a management tool to adopt proactive measures to survive. The study revealed that some fine-dining restaurateurs in Cape Town adopted new ways of running their businesses. The Vineyard hotel restaurant discarded pasta from the menus and customers could no longer order boiled vegetables (BusinessDay, 2018). This issue raised the question of how long these restaurant businesses would operate under these circumstances. The restaurant manager at the Vineyard cited that they no longer boiled food but steaming, frying, and shallow frying implemented and

removed pasta from the menu. The restaurants reused water to wash vegetables by transferring the water into 200 litres drums and storing it for other uses (BusinessDay, 2018). Restaurant Villa 47, in the City Centre, introduced water-saving devices on their taps. The restaurant used 25-litre water containers to catch the runoff from the ice machines and the ice wells. The water from the ice machines and the air-conditioning was re-used for washing floors. The restaurant did not make use of tablecloths but used paper napkins only (BusinessDay, 2018). The Carne, an Italian restaurant used a variety of paper and cloth napkins to avoid washing dishes and the menu did not use water as the meat in Italian cuisine is grilled (BusinessDay, 2018). The Western Cape economy reduced by 1% from its national contribution of 13% per annum and 0.13% growth reduction came from domestic products, even though there was no certainty that declined growth was due to the water crisis (CNBC, 2018). The restaurant businesses were doing their best to curb the water crisis although there were no guarantees of sustainability to survive in the long-term. The study aimed to determine the effectiveness of the water-saving strategies implemented for long-term survival and the impact of the water crisis on the financial performance of fine dining restaurants.

The city hoped to solve this problem by building desalination plants and introducing water sources to draw water from the ocean, which proved to be a less cost effective strategy. Hoekstra and Mekonnen (2016) compared Cape Town with a population of 4 million that only re-uses 5% of wastewater, with Israel that re-uses 85% of their wastewater, proving that a lot still needed in Cape Town to create water-consciousness. This evidently showed that the water crisis is a real problem and a most challenging situation that needs special consideration. According to Welter (2012:957) restaurants can move towards sustainability by employing strategies around reducing and reusing waste, reusing water, and reducing water usage. Segal (2009) believed the solution to this problem in SA was implementation of collective efforts from the government, private sector, and society to save water by prioritizing water management in both private and public sectors through effective planning. The strategies employed needed to be effective to ensure long-term survival. This study sought to determine the effectiveness of the strategies used by fine dining restaurants to save costs in water-usage and identify the financial constraints due to the water-restrictions and having to devise new methods to save water.

The study focused only on fine dining restaurants in the Cape Town Metropole. Below is the map of Cape Town as the study area:



**Map of the Cape Town Metropole - (The study focus area)**

**Figure 2: 4 Cape Town Metropolitan Area map**

#### **5.4.2 Economic status of Western Cape during Water crisis**

Cape Town is the economic hub of the Western Cape, a home to 78% of the Western Cape's GDP and 66% of the provincial population. Cape Town contributes to 11% of the national GDP, therefore is a key economic hub nationally (Pegram & Baleta: 2014). The agricultural sector in the Western Cape, both irrigated and dry, contributes 15% of the regional economy. Therefore, Cape Town generates 40% of jobs in SA. Agricultural manufacturing contributes to 20% of the economy and 10% of the jobs, while tourism, heavily dependent on the aesthetic value of functioning farms in the region, contributes 10% to the economy and 45% of the visitors coming to the Western Cape. Cape Town contributes 50% to the economic growth through the energy industry, tourism and agriculture. The problem that arises is the deterioration of these industries as they may begin to shrink due to the water crisis. To add to the pressure on water resources, the Western Cape is also one of the most visited areas of South Africa by international and domestic tourists (African blue tours, 2018).

The problem of the water crisis has threatened some businesses resulting to others closing down and some employees losing their jobs, especially farm workers (Le page, 2018). The impact of the water crisis negatively affects the export economy and influx of foreign exchange. The decrease in tourism has the same effect on foreign earnings. The use of natural resources without renewal by industrial gains in purchasing power and the high water consumption in the tourism industry are a concern. The destinations visited, such as restaurants and the winelands, require large amounts of water to remain of interest to tourists (Pegram & Baleta, 2014). According to Love Cape Town (2018), the water crisis had left the Western Cape region severely water-stressed, having water restrictions in place and which left tourism and hospitality businesses concerned about the impact on visitors coming to Cape Town. The Western Cape region will soon be under threat due to water shortage by 2030, which will make it impossible to cater for all of its inhabitants. A growing urban population as well as a growing tourist population is pressurizing the water resources. Another water crisis dilemma is the expected global population growth by 9 billion in 2050 and this raises concerns about the planet's endowment of accessible renewable freshwater (Srinivasan, et al., 2012:1). On this note, businesses in the Western Cape are bound to be strategic in maintaining their businesses to ensure their survival.

In the Western Cape, agriculture and tourism have an increased demand for water. According to Welter (2012:959) if the demand for water increases by 3 percent per annum, that will increase the chances of water exhaustion by 2025. The exhaustion in the water supply has already left many businesses in South Africa struggling for survival. This problem raises concerns about whether the entrepreneurs have implemented effective strategies for long-term business survival. The impact on the financial performance of fine dining restaurants by the water crisis pandemic is yet to be established. Due to the need to maintain the businesses sustainably, the restaurants in the city of Cape Town are to ensure that their businesses offer the expected customer service satisfaction without forgetting to implement water-saving strategies. The efforts made by the South African government to pressure society in conserving water have pushed some citizens into reusing water i.e. showers, and not flushing toilets after every visit (Pettersson, 2018). Even if the water crisis may seem diverted, the water scarcity issue is still highly relevant in the long-term. Various ideas for better long-term solutions for water scarcity are under evaluation (Mahr, 2018). The City of Cape Town municipality burdened by the onerous task of making sure that residents do not slip back into their old habits (The guardian, 2018).

There seem to be awareness amongst many sectors, including the Food and beverage sector as well as local government about scarce water resources and therefore managing water responsibly by both the local governments and the other water-consuming sectors is crucial. The question though is how effective are the water-usage strategies implemented by these organizations. The water shortage is a clear indication for the entrepreneurs in the Western Cape to be innovative and creative to ensure sustainability for their businesses in terms of profitability and long-term survival.

## **2.6 CONCLUSION**

This chapter reviewed the literature in detail, highlighting the severity of the water crisis. In this chapter, the writer tried to close the gap in the literature since there were no previous studies conducted on this topic. The writer also clearly revealed the impact of the water crisis globally. The literature review links the water crisis to entrepreneurship and the writer shows the readers the importance of entrepreneurial practises in taking advantage of the external business challenges. The chapter gave detailed links between entrepreneurial practices, the water crisis, fine dining restaurants, and definitions of the key terms in the study i.e. entrepreneurship, innovation, creativity, sustainable entrepreneurship, water crisis, Ecopreneurship, and Fine dining restaurants. The impact that the water crisis had on the survival of tourism businesses that rely on water for survival depends on the entrepreneurial strength required to succeed in the market during the water crisis challenges. The chapter described and discussed the relationships between the main variables of the objectives of the study. The literature revealed that the water crisis was not about having too much or too little water to satisfy people's needs, it was about managing water so that billions of people and the environment would not suffer (World water council, 2018). Poor water management posed a threat to restaurant businesses and any other businesses that use water for survival unless the fine dining restaurant entrepreneurs in Cape Town implemented effective strategies to ensure long-term sustainability. The next chapter presents detailed design and study methods that the researcher utilised to achieve the study objectives.



## **CHAPTER THREE**

### **THE RESEARCH DESIGN AND METHODOLOGY**

#### **3. Introduction**

The previous chapter revealed the adverse impact of the water crisis on the economic growth in Cape Town and the closing down of some fine dining restaurants due to the water crisis and the announcement of Day Zero.

This chapter provides an opportunity for the discussion of the selected research methodology in detail. The chapter also discusses in detail the techniques employed in selecting the target population, sample, data analysis tool, and ethical standards employed for the research. As a component of this discussion, the researcher considered both the advantages and challenges associated with the selected methodology. By drawing on previous examples and or theories of related studies, the chapter will explain why the selected methodology is most appropriate for this study.

#### **3.2 Recap of the research objectives**

The impact of the water crisis in Cape Town has left some fine dining restaurants in the Cape Town Metropole at the point of closing down, whilst others embarked on being innovative by implementing new strategies to survive the water crisis, or face the high tariffs. The study had to formulate proper research objectives to determine the impact of the water crisis on the financial performance of fine dining restaurants in Cape Town.

#### **3.3 Research Aim/ Objective**

The research main aim was to determine the effectiveness of the business strategies adopted by fine dining restaurants to ensure customer satisfaction and to maximise profit for the long- term. The fine dining restaurants offer upscale settings and service while featuring unique and often more expensive menu options (Webstaurantstore, 2019). The service standards require the business owner to choose its strategy well on making business decision. Saunders, Lewis and Thornhill (2009:25) stated that objectives are evidence of the researcher's clear sense of direction and purpose.

##### **3.3.1 Subsidiary Objectives**

To obtain the answer to the main research objective, the researcher developed sub-objectives as a breakdown to answer the main objective as per below:

1. To identify the management strategies implemented by businesses during water restrictions for long-term survival.
2. Determining the barriers to the business management strategies implemented.
3. To determine the impact on financial performance due to the water crisis.

### **3.4 Research Questions**

The clear research questions drafted in the study indicated the start of the research process. The main criteria for the research based on clear conclusions drawn from the data collected during this study Saunders et al (2009:23).

To achieve the study objectives as listed above, the researcher developed questions aligned to the objectives as per below:

#### **3.4.1 Main Question**

How has the water crisis/ restrictions impacted the customer satisfaction levels and profit maximization for long-term survival on fine dining for the restaurant?

#### **3.4.2 Sub Research questions**

1. What are the implemented business management strategies due to the water restrictions/ water crisis for long-term existence?
2. What are the barriers/ challenges to the business management strategies implemented?
3. What are the effects on financial performance due to the water crisis?

### **3.5 Research Population**

The population is a group of people from which a sample is taken (Saunders, Lewis & Thornhill, 2003:151). It was not possible to conduct the study on the whole population due lack of responses from the fine dining restaurant owners. The target population in this study was the restaurants in the Cape Town Metropole. The study narrowed it down to formal restaurants or fine dining, therefore it excluded quick service restaurants, cafes, and cafeterias. The units of analysis were the fine dining restaurant businesses. Twenty- nine of the best fine dining restaurants in the Cape Town Metropole was earmarked as the study's population (Eatout, 2018). The selection of the population size proved to be challenging, as some restaurants from the restaurants found in the

Cape Town Metropole were actually not fine dining. The non-probability sampling was used in the study as the fine dining restaurants have a specific character of a formal establishment following a specific dining trend. Few restaurants in the Cape Town Metropole are actually fine dining establishments. The researcher had to confirm telephonically with the restaurant that it is indeed a fine dining restaurant before conducting the study. The restaurants contacted requested to participate in the study but some of them refused to assist claiming to be very busy to participate. The other restaurants contacted were not reachable and could not avail themselves to participate in the study. Another challenge was the start of Covid19 that led to the country closing down and everyone was in fear of the virus. Due to these sampling challenges, the study ended up with a small sample size. The results could be generalised on the sample size of 5 restaurants that agreed to participate on the study.

The majority of fine dining restaurants are located in the Cape Town city centre and this motivated the choice of the population for the study. The individuals interviewed were owners and managers of the fine dining restaurants selected, who were best suited to answer the research questions. The fine dining restaurants are required to maintain high quality standards of fine dining experience. The research took an interest in this population of fine dining restaurants.

### **3.6 Research Location/ study area**

The city of Cape Town has been on the tourist radar for decades and is home to the best food and wine dining restaurants in the world. The outstanding cuisine creates so much competition for restaurants in the Cape, hence there are so many restaurants in Cape Town but very few are fine dining restaurants. The area that the study focused on is the Cape Town Metropolitan area.

### **3.7 Population and Sampling frame**

#### **3.7.1 SAMPLING**

The sampling technique used in this study was the selection of fine dining restaurants in the Cape Town Metropole and the restaurant managers / owners to answer all the questions to achieve the study objectives (Jenning, 2010:443). According to Saunders, Lewis and Thornhill (2009:150) it is unfeasible to survey the whole population hence a sample is used. The restaurant owners/ managers used as a sample for the study were not from just any restaurants, but only from fine dining restaurants to ensure a proper sampling frame. The two sampling techniques, probability/ representative, provided a range of methods that enabled the researcher to attain data only from the selected sample rather than all possible cases or elements.

### **3.7.2 Probability Sampling**

The probability technique is useful when doing a study that involves many numbers. Probability sampling involves simple random sampling, systematic sampling, stratified random sampling, and cluster sampling (Saunders et al., 2009:161). The study did not require use of this sampling technique.

### **3.7.3 Non probability Sampling**

A non-probability sampling method is the sampling technique used in this study. The use of a non-probability sampling technique was useful in this study to reach a target sample quicker (Maree, 2007:178). This is also known as judgmental, selective, or subjective sampling. The non-probability method was ideal for this study as the fine dining restaurants have the specific character of a formal establishment following a specific dining trend. As discussed previously in this study never been explored and this is a new area of study. Few restaurants in the Cape Town Metropole are fine dining establishments. The researcher had to confirm that the restaurant is indeed a fine dining restaurant before conducting the study. As such sampling snowballing technique was deemed to be the most appropriate (Jennings, 2010:140). Snowballing is utilised when the researcher was experiencing difficulty in reaching participants whom the researcher may not know (Jennings, 2010:140). Once the researcher identified one member of the population, the participant in the study introduced the rest of the members. The fine dining restaurateurs referred me to other restaurants that were willing to participate in the study.

Advantages of sampling include:

- **Cost Reduction:** It is cheaper to collect data from a part of the population and it is more economical (Maree, 2007:178).
- **Greater Speed:** Sampling gives the researcher more time for data collection, as it is quicker and allows time for collection of information (Maree, 2007:178).
- **Detailed Information:** Investigating and studying a small universe/sample provides detailed and comprehensive information (Maree, 2007:178).
- **Practical Method:** Sampling is the only practical method when the population is infinite (Maree, 2007:178).
- **Much Easier:** It is much easier to collect information by sampling than from many individuals in a population (Maree, 2007:178).

### **3.7.4 Sampling Techniques**

According to Saunders, et al (2003:150) a small group selected from the whole population is a sample. The selection of the population size proved to be challenging, as nine of the restaurants from the 29 restaurants used for the sampling frame found in the Cape Town Metropole were not fine dining. According to Saunders, Lewis and Thornhill (2009:156) a sample size of the population must ensure a 95% confidence level to be able to generalize the results. Five restaurants were the actual sample size of the study. This sample size was smaller due restaurant owners interviewed proved to be owning 3 or more of the fine dining restaurants found in the Cape Town Metropole. Uys (2017) argued that for the results to be significant, the analysis of the results from the sample need to be generalizable to the whole population. In line with the grounded theory (Saunders, et al., 2003:93) the saturation point was reached after interviewing the fifth participant. Therefore, five restaurants were a sample size.

### **3.8 Research Design and Methodology**

A research design is a directive of how research question(s) will be answered (Saunders, et al., 2009:88). It can be either empirical or conclusive. According to Bryman (2004:19), there are two methods, using different tools for collecting and analysing data, that are widely used, namely quantitative and qualitative methodology.

Methodology refers to various ways to obtain systematic solutions to a problem (Maree, 2008:254). Researchers compile their work by describing, planning, explaining, and predicting which requires knowledge of research techniques/methods and a scientific approach (Maree, 2008:254). The qualitative method was determined to be the best tool in this study to obtain detailed data from fine dining restaurants, to solve the water crisis issue.

#### **3.8.1 Qualitative Research**

A qualitative methodology adopts an unstructured, primarily exploratory-based approach using small samples intended to provide insight and understanding (Maholtra & Birks, 2007:152). Walliman (2006:36) added that a qualitative study relies more on the interpretation of language through human interaction and theory building. The selection of qualitative study method based on the nature of the study. The design of the study was exploratory and the findings of the study based on collected data through in-depth interviews to determine the effectiveness of the business management methods that the restaurants implemented for long-term survival. The semi-structured interview questions drafted based on the main question to determine the

effectiveness of the business management strategies implemented by fine dining restaurants to ensure customer satisfaction and to maximise profit for long-term survival. The interviews conducted with the owners and top managers of fine dining restaurants, as they were the decision-makers of the restaurant businesses. The researcher did face-to face interviews in the restaurants. The study used both inductive and deductive design approach, theory from the study was developed through theoretical framework, interviews that were conducted and observations (Saunders, et al (2003:93). Through this qualitative approach, the study used Grounded theory as the investigating tool to the problem of water crisis for fine dining restaurants in the Cape Town metropole.

### **3.8.2 Quantitative Research**

The quantitative methodology seeks to quantify data and typically applies some form of statistical analysis (Maholtra & Birks, 2007:152). The researcher did not find a quantitative study method necessary in this study.

### **3. 8.3 Mixed Methods**

Mixed methods refer to the use of different paradigm approaches, qualitative and quantitative. When using a quantitative approach, the reality is through use of valid and reliable tools. The quantitative approach is experimental research that includes survey questionnaires, statistical analysis, and focus-group questionnaires (Uys, 2018: 7). On the other hand, the qualitative approach conducts in-depth interviews, observations, participation, and narratives (Uys, 2018:42).

The exploratory research design permits sound primary data collection, therefore facilitating new insight and perspectives. George (2011:131) defined qualitative research “as an in-depth interview to uncover underlying attitudes and motivations”. This study used a qualitative approach as deemed necessary. This area of study is new and it required exploration, making qualitative approach the best method of conducting the study (Saunders, Lewis & Thornhill, 2009:248). The interviews conducted gave new ideas and insight from fine dining restaurant owners on the issue of water- crisis in Cape Town Metropole. The design of the study was exploratory and the findings of the study based on collected data through in-depth interviews. The in-depth interviews conducted, answered all the research questions to solve the construct.

### **3.9 Data collection Methods**

The primary data is the first-hand information from the participants in the event or condition researched. According to Saunders et al (2003:245) primary data collection involves using interviews (structured, semi-structured, or unstructured), and another method of collecting primary data which is often referred to as first-hand information, involves collecting data using survey questionnaires. In this study, the researcher used primary data collection tools. The study initially adopted semi-structured interviews to get the feel of the study.

The secondary source is information that has been collected and often interpreted by other researchers and documented in books, articles, and other publications (Thought Co, 2017). According to the Cape Peninsula University of Technology, the secondary sources used should mean recent publications and not older than ten years. In this study, the secondary sources consulted included books, journal articles, news publications, and information from various websites.

#### **3.9.1.1 Interview Techniques**

According to Maree (2008:50) the qualitative data collection methods may vary when using unstructured or semi-structured techniques. Some common methods of collecting data include focus groups/ group discussions, individual interviews, and participants /observations. The open-ended questionnaire also helps in getting detailed information of significance in a broader platform. The informants for the study were the restaurant owners/managers from 10 identified fine dining restaurants in the Cape Town Metropole since they are involved in the business decision making. The informant's role was to answer the questions based on the semi- structured, face-to-face interviews as well as participating in the close-ended survey questionnaires administered face-to-face. The semi-structured interviews were informal, non-standardised, in-depth, and exploratory, and covered the lists of themes and questions. There were predetermined lists of questions to work through this process and the interviewee given an opportunity to express him/herself freely (Saunders, Lewis & Thornhill, 2009: 246-247). The semi- structured interview method assisted the study to obtain in-depth information to solve the problem.

#### **3.9.1.2 Interview process**

The study utilised informant interviews as the method of investigation. A personal interview, also called a face-to-face interview, is a survey method used when a specific target population is involved. The purpose of conducting a personal interview is to explore the responses of individuals to gather more and deeper information (Jennings, 2010:171).

To conduct the interviews, an interview schedule was utilised. The interview schedule is the guide an interviewer uses when conducting a structured interview, it consists of a set of questions that the interviewer asks the interviewee (Sage Methods, 2017). This comprises personal interviews, also called face-to-face interviews as well as telephonic interviews.

Advantages of Personal Interview Survey:

- High Response Rates

One of the main reasons why researchers achieve good response rates through this method is the face-to-face nature of the personal interview survey. Unlike administering questionnaires, people are more likely to answer live questions about the subject (Saunders, Lewis & Thornhill, 2009:248).

- Tolerable Longer Interviews

If you wish to probe the answers of the respondents, you may do so using a personal interview approach. Open-ended questions are more tolerated through interviews because the respondents would be more comfortable expressing their long answers orally than in writing (Saunders, Lewis & Thornhill, 2009:248).

- Better Observation of Behaviour

The research conducted on the effect of the water crisis on fine dining restaurants in the Cape Town Metropole benefited from personal interviews, because interviews presented a greater opportunity to observe the attitudes and behaviours of the respondents / consumers towards the questions asked.

The targeted key informants interviewed for the study were individuals who were involved in the decision making of business operations in fine dining restaurants. The key respondents were fine dining restaurant owners or top managers

The key themes that were included in the interview schedule are:

1. To identify business management strategies implemented by fine dining restaurants due to the water crisis for long-term existence.
2. Determining the barriers to the business management strategies implemented.
3. To determine the financial performance effects for businesses due to the water crisis or restrictions.



The interviews conducted were face-to-face with restaurant managers / owners of the fine dining restaurants. The interviewer had to travel to the location of respondents' hotels and restaurants and interviews scheduled for 1 hour each day. Refusal rates generally were higher because of the restaurant managers' / owners' busy schedules. Only face-to-face interviews conducted in this study.

### **3.9.1.2 Structured interviews**

The structured interview uses questionnaires based on standardised questions, also known as a standardised schedule. The questions in this data collection tool are structured accordingly and during the interview, questions are read out in the same tone of voice to avoid being biased (Saunders, Lewis & Thornhill, 2009:246). The study followed a semi and unstructured interview schedule as a method of collecting data.

### **3.9.1.3 Semi-structured Interviews**

The study conducted semi-structured interviews with fine dining restaurant businesses in Cape Town. The semi-structured interviews consisted of a list of questions but the researcher could omit or add questions to reach the objectives of the study and acquire the data recorded, using a tape-recorder or note-taking (Saunders, Lewis & Thornhill, 2009:247).

### **3.9.1.4 Unstructured interviews**

These types of interviews, referred to as Informal, are in-depth. There is no predetermined list of questions to work through. The interviewee can talk freely to express him/herself. The researcher is still required to be clear on the aim of the research. The study allowed the interviewee to talk freely to obtain in-depth information to achieve the study objectives.

### **3.9.2 Survey questionnaires**

The survey questionnaire is a quantitative data collection tool for descriptive or explanatory research and enables the researcher to identify and describe different variables in different situations or phenomena (Saunders, Lewis & Thornhill, 2003:281). Unlike interviews, the survey questionnaire is not exploratory or in-depth. The researcher does not need to be present during answering of the questionnaires as the design is supposed to be straightforward. The explanatory aspect enables the researcher to be able to monitor the link between the variables in the study. Interviewer questionnaires can be done telephonically using structured interview questions (Saunders, Lewis & Thornhill, 2003:282). In this study, interviews conducted were depending on the availability of the respondents and the interview questions done were face-to-face with the

managers/owners. Collecting data was very challenging as the respondents were very busy individuals and the back-bones of the businesses.

### **3.9.2.1 Structured Questionnaires**

The questions on structured survey questionnaires are predetermined, closed-ended questions. The structured questionnaire allows comparison of the answers given by all the participants asked the same questions, whereas unstructured questionnaires have questions that arise during the interview (Collis & Hussey, 2009: 195).

### **3.9.2.2 Unstructured questionnaires**

There are drafted unstructured questionnaires, but the interviewer sometimes adds additional questions to obtain more information during the survey or includes relevant issues that explore answers to the phenomenon. The unstructured questionnaires are exploratory, interpretive and, in-depth (Collis & Hussey, 2009: 195). The study used unstructured questions, open questions, and questions to get detailed information, as the research strategy used in this study.

### **3.9.2.3 Design of the questionnaire**

According to Saunders, Lewis, and Thornhill (2003: 281) questionnaires are one of the most important data collection tools to provide the precise data that answers the research questions and the design of a good questionnaire determines the reliability and validity of the collected data. The survey questionnaires were quantitative data collection tools administered in this study after the completion of scheduled interviews with the owners and managers of fine dining restaurants.

## **3.10 Prevention of Bias**

To prevent bias in the study the researcher used different methods to collect data. Data collected from primary sources, interviews, secondary data sources such as books, internet, articles, magazines, and newspapers. Collis and Hussey (2009: 85) affirmed that the use of multiple sources and different methods of investigation reduced bias in methods and sources of data.

## **3.11 RELIABILITY AND VALIDITY**

Validity is the degree to which a research study measures what it intends to measure. There are two main types of validity - internal and external. Internal validity refers to the validity of the measurement and test itself, whereas external validity refers to the ability to generalise the findings to the target population. Both are very important in analysing the appropriateness,

meaningfulness, and usefulness of a research study. Welman and Kruger (2001: 118-123) cited that the research findings must be generalised to the study population, circumstances, and conditions.

If the study results are not valid, they are meaningless to the study. It is pivotal to ensure that the research question measures what it wants to measure to ensure the validity of the results. The researcher ensured that the questions drafted were suitable to answer the research questions. Results that are not generalizable to any findings become a waste of time and effort. It is important to remember that just because a study is valid in one instance it does not mean that it is valid when measuring something else. The generalization of the results relates to the reliability of the findings (Welman & Kruger, 2001:139).

It is also pivotal to ensure that validity and reliability do not get confused. As stated previously, reliability is the consistency of results when replicating the experiment under the same conditions, which is very different from validity, meaning the extent to which scores may be generalised to different measurement/test forms and measurement administrators (Welman & Kruger, 2001:139). The evaluations of both validity and reliability of research studies are independent factors, therefore a study can be reliable without being valid, and vice versa. The study was to determine the impact of the water crisis on the financial performance of fine dining restaurants in the Cape Town Metropole. The researcher ensured validity through the interview questionnaires drawn and did a pilot study to ensure that the questions asked directly answered the questions to the study, and that the study measured what it intended measuring. The sample size used in this study warranted that findings were generalised to the population from where the sample selected were to ensure the validity of the study. The researcher also guaranteed the reliability of the findings as interview questions would be replicable to give the same findings and no added or removed information from the findings.

### **3.11.1 PILOT STUDY**

It is important to test your interview or survey questionnaires as fully as possible before distribution to the respondents and researchers achieve this through pilot testing the questionnaires with individuals who have similarities to the chosen sample (Collis & Hussey, 2009: 193). The study did drafts of the interview schedule and tested them with the supervisor and the university statistician to identify weaknesses/problems in both methods before conducting the research.

### **3.12 DATA ANALYSIS**

(Maxwell, 2005:96) stated that the main categorizing strategy for qualitative research was coding. As mentioned by Atlas.ti (2012), "most coding requires the researcher to read the data and demarcate segments within it. Each segment labelled with a 'code'. When coding is complete, the researcher prepares a report discussing similarities and differences in related codes across distinct original sources/contexts, or compares the relationship between one or more codes." Once interviews were completed then information collected categorized and compared across cases (Stoner & Angell, 2006:179). The data collected from the interviewees was analysed and compared in chapter 4 of this study. The recorded text transcribed using a smart cellphone and placed into meaningful themes. The data collected determined the relationship between the independent and dependent variable (regression analysis). The question around the impact of the water crisis on fine dining restaurants was determined through the analysed interview responses.

In the process of the data analysis, data collected, transcribed, recorded, and rewritten word for word in a verbatim format. According to Maree (2007:104) it is not acceptable to write up summary notes from a taped recording, as the interviewer will almost certainly include only the sections that seem relevant or interesting. (Maree, 2008:105) defines inductive coding as "marking the segments of data with symbols, descriptive words or uniquely identifying names and the process of developing the codes for the data". The study used an inductive coding process to enable the researcher to retrieve and collect the relevant information. The researcher grouped responses together and compared the uniqueness of the responses to all the different responses to draw up a conclusion for the study. The inductive coding assisted in establishing whether respondents to the questions agreed or disagreed, the process is discussed in detail in chapter 4 of the study.

During the inductive approach, the researcher first examined the communication messages in question without preconceived concepts/categories. Using the deductive approach, the researcher began with predetermined key words, categories, or variables (based on relevant literature or other resources) and sifted the data using these variables (Gabriel, 2013).

Generally, researchers use qualitative content analyses when working inductively. Content analysis provides a scientific method for the evaluation of data collected using a variety of qualitative research approaches including interviews, videography, ethnography, and observations (Kondracki et al., 2002:224-225). The study ensured that data collected from the

interviewees sorted and analysed according to the responses from the ten fine dining restaurateurs.

### **3.13 ETHICAL ISSUES**

The personal interviews conducted were face-to-face interviews. The purpose of conducting personal interviews was to explore the responses of individuals to gather deeper information (Jennings, 2010:171). To conduct the interviews, the interviewer used an interview schedule as a guide when conducting a structured interview and it consisted of a set of questions the interviewer asked the interviewee (Sage Research Methods, 2018). The informants advised of the ethical considerations and their rights explained before conducting the interviews. In terms of research Ethics, the ethical clearance certificate to conduct research obtained from the Research Ethics Committee of Cape Peninsula University prior to conducting the study (see Appendix B).

#### **3.13.1 INFORMED CONSENT**

It is vital to obtain a written Informed consent from all respondents before the interviews. No conducted research done without the written consent letters obtained from all willing participants of the fine dining restaurants selected for the study in the Cape Town Metropole. The reasons for the research were explained and they were informed that their participation was voluntary, no incentives were offered to them in exchange for their time (Saunders, et al., 2003:134).

#### **3.13.2 VOLUNTARY PARTICIPATION**

The researcher assured voluntary participation to all individuals that participated in the study and they guaranteed freedom from coercion. All participants advised that they were free to withdraw their participation at any time without their involvement in future services or the current program negatively affected. The participants also advised of the right to leave the research study at any stage therefore no pressure placed on those who chose not to continue. Their safety, no exposure to harm or risk, and that the study would not affect the participants, was guaranteed. The researcher explained reasons for conducting the research and obtained voluntary participation in writing before conducting the study. There were no incentives offered to respondents in exchange for their time (Saunders, Lewis & Thornhill, 2003:134).

#### **3.13.3 CONFIDENTIALITY ANONYMITY**

The researcher granted assurance to anonymity confidentiality to the interviewees that confidentiality of their identity and that of their business guaranteed, and that they could withdraw from the interview at any time. All participants were guaranteed anonymity and that information

provided would be treated with confidentiality, ensuring compliance to the data protection legal requirements at all times (Saunders, et al., 2003:142). In this study, there was no mention of participants' names, businesses or their positions to ensure their confidentiality and anonymity.

#### **3.13.4 PERMISSION**

Permission to conduct the study granted by the restaurant owners, allowing the researcher to visit the businesses for data collection and to ensure that there was no trespassing. The researcher worked according to the agreed times for the interviews. This involved credibility in gaining access to the informants, the time taken, and obtained access in writing to the organizations (Saunders, et al., 2003: 122).

#### **3.14 CONCLUSION**

This chapter discussed the research method and design of the tools used in collecting data in this study. The chapter gives details about the data collection tools used in the study. It explains the qualitative and quantitative approach, including the researcher's choice on qualitative approach in this study. The researcher ensured that the research findings were reliable and valid by following the research processes as mentioned in this chapter. The findings' accuracy was vital for appropriateness, meaningfulness, and usefulness of the research study for future use. This chapter has given a detailed plan of how the study and the processes were followed in conducting the study, from identifying the study population, selecting the sample size, the study methodology, ensuring validity and reliability, and ethical consideration. All processes followed for collecting data and the rules and regulations observed for conducting the study. The next chapter will discuss the research findings from all the respondents interviewed in detail.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND DISCUSSION OF RESULTS**

#### **4. Introduction**

The purpose of chapter 4 was to present, analyse and discuss the findings from the data collected for the research study. The findings presented in this chapter are the results of responses based on questionnaires drawn to fulfill the objectives of the study. The results will add conclusive

evidence to the construct of the study and provide recommendations using the 10 fine dining restaurants interviewed in the Cape Town Metropole. The nature of the study only required the researcher to use a qualitative study method, due to the small size of the population. The study was strictly descriptive analysis, meaning the researcher conducted the study using exploratory research questions, which were open-ended to give detailed information on the questions based on the purpose of the study.

#### **4.1 Data presentation process**

The data collected during the research study was analyzed using content analysis. The researcher used content analysis to categorize themes on the transcribed text. The findings were presented using verbatim quotations assisting in providing direct responses. The responses were analysed according to categorized themes, the study was about the impact of the water crisis on the financial performance of fine dining restaurants and determining the business strategies implemented for customer satisfaction and profit maximization for the long term. The research started with the implemented strategies and their impact on financial performance.

##### **4.2.1 Research Main Objective**

To determine the effectiveness of the business management strategies implemented by fine dining restaurants due to the water crisis, for customer satisfaction and profit maximization for the long- term survival of fine dining restaurants in the Cape Town Metropole.

##### **4.2.2 Research Sub- Objective**

1. To identify the implemented business management strategies due to the water crisis for long-term existence.
2. Determining the barriers to the business management strategies implemented.
3. To determine the effect on the financial performance of fine dining restaurants due to the water crisis.

#### **4.3 The scope of the in-depth interviews conducted with fine dining restaurant managers and owners**

The study embarked on a qualitative research methodology through conducting in-depth interviews with 10 fine dining restaurants in the Cape Town Metropole. The standardized questionnaire drafted based on the above-mentioned research objectives to establish the impact of the water crisis on the financial performance of fine dining restaurants. The interviewer allowed

the interviewees to express themselves fully using an open-ended questionnaire. The in scheduled interview questions answered by the interviewee were based on the questionnaire labeled as Appendix.

#### **4.4 The analysis of the responses from all the participants interviewed**

The individuals interviewed, also referred to as respondents in this study, from the five fine dining restaurants chosen for the study, will be labeled according to numbers as per the below sample size table:

**Table 4:2 Participants**

<b>Name of the respondent</b>	<b>Number of fine dining restaurant businesses</b>
Participant 1	Owner of 2 fine dining restaurants (wine cellar and function venues)
Participant 2	Manager of 4 fine dining restaurants
Participant 3	Manager- 1 fine dining restaurant
Participant 4	Manager – 2 fine dining restaurants and conference venue
Participant 5	Owner - 1 fine dining restaurant

#### **4.5 The Main research Question**

How has the water crisis/restrictions impacted the customer satisfaction levels and profit maximization for long- term survival of fine dining for the restaurants?

#### **4.6 Response categories below are based on the theme about implemented strategies**

##### **Research Sub- question 1**



What are the business management strategies implemented during the water restrictions/water crisis for long-term existence and operational procedures to guide employees towards achieving a sustained existence?

- a. As the manager/ owner of the fine dining restaurant, what methods are implemented to guide employees as well as customers to maintain operational costs through water-saving?

Participant 1: "The water crisis problem was a close call with almost running out of water and the problem started when the government and the city of Cape Town took too long to realize the problem. When the problem was announced about the dams drying up, I held a meeting with the staff from all my businesses about this water crisis problem in Dec 2014. The meeting was to discuss the way forward for the business operations. I have 26 employees in this restaurant. At the end of April 2015, news of day Zero came as a shock to many restaurant businesses as we realized that drastic measures were urgently required. The water crisis forced us to introduce new water-saving strategies. We started to put water tanks in our backyards, but customers started noticing and we started toilet flushing with rainwater as much as we could. I had to buy water tanks, solar power, wind power, power battery backup systems, and cooking headlamps. We have started buying a lot of water and power-saving equipment. I have two fine dining places, the wine cellar and Function venues in Hope Street. I was the first person to install the 60 wind energies for both businesses before the Hotel Verde in Cape Town Airport and it costs a lot of money. I am quite happy I have an organic garden, green energy, sustainable fish supply, free-range supply. I also implemented load -shedding menus, cold menus, using headlamps when cooking and I built battery packs underground and green energy".

Participant 2: "We were not scared of the water crisis but we had to implement new water- saving strategies otherwise the municipality of Cape Town would have cut off the water supply. We are a business that deals with volumes of customers. There were many options we had to consider and did a further digging into the water crisis matter. Initially, I wanted to do waterless menus. Having four restaurants' to deal with requires consistency in the implementation strategies on dealing with the water crisis. There are a number of challenges to consider when working in the kitchen in a fine dining restaurant, especially health and safety issues. When you think of a waterless menu as we sit down, certain things are taken into consideration from the source of production like coffee production, vegetables and we then concluded, we are not going to do waterless menus. We realized that we are opening a "can of worms" considering the need to take

it from the source to the end -product and this proved an unrealistic approach. We introduced a system called the Arc Aqua system that uses ultra -violent light, spray, and disinfected water. We are making it happen from the background by trying to reuse water where possible. We use big steamers instead of boiling to avoid using lots of water. We also have introduced bore-holes. The hotel is situated at its advantage on a natural spring and we have reservoir tanks for water.

The Hotel also uses four massive water tanks and boreholes for other use. “We did our utmost best to follow the water-restriction savings such as closing the big swimming pools and only operate with the small swimming pools. I closed ice machines, 1 coffee shop was closed temporarily, use of disposable serviettes sometimes but with R1000 menus you can’t use paper serviettes but washable ones so one needs to use a strategy in your implementation processes. I have a policy of making sure staff does not throw any food away to avoid waste and that proper filters are in place in case water is contaminated. I analysed how much water the business is going to use and did not foresee any problem for the business, as we made sure of enough water in storage in case of day zero”.

Participant 3 and 4: “One of our values as the business is to save water. There is no turning back now from using the water-saving strategies and after spending such a lot of money on these implementation strategies, we do not want to go back to old habits. We have introduced the use of paper napkins, introduction of a grey water system, several boreholes and the main borehole allows us to go off the water bill so that we do not have to use municipal water. The business uses paper serviettes, reduced use of ice, and uses ice bricks instead of ice machines. We switched off some ice machines, removed bath plants, timers in the showers, buckets in showers for re-use by house keepers, and water bottles in rooms to collect used water to reuse water for gardens”. Participant 4 stated, “The other thing that helps is having the water tanks to save water. The company utilizes staff to create more employment by manually cleaning the kitchen instead of the automatic cleaning system that used a lot of water. We bought a new dishwasher with lower water consumption. We also did away with lots of linen in the rooms”.

Participant 5: “The business has been in existence for about 50 years. We have not implemented any water-saving strategies because we are a small restaurant. We do not use a lot of water and even with the limited water-supply, the business didn’t exceed the limit for consumption. The only problem we faced was load-shedding, the strategy we used was hosting candlelight dinners, on special price and the meals that we cook are light meals using a gas stove.”

#### **4.7. Summary of the responses on water – saving strategy implementation**

Two years after the identification of a chronic drought threatening to leave the city of Cape Town without water, affected tourism visitor numbers were affected within weeks and an economic bright spot was knocked down (Eyewitness News, 2018). The water crisis ranked as the third most concerning global risk posing a major threat (Hedden & Cilliers, 2014:1). The studies revealed that the water crisis posed a threat to Cape Town restaurant businesses, those that successfully survived the water crisis had to build dynamic capabilities that would maintain them for the long-term (Parker, 2018). The study focused for the first time on fine dining restaurateurs regarding the impact of the water crisis on their businesses and the study was to determine their water- saving strategies. The participants' ideas about the reality of the water crisis were different, but 99% indeed implemented new business strategies to survive the water crisis for long- term survival. Forty percent of the participants confirmed that Cape Town municipality actually forced them to implement water-saving strategies, stating that the problem started when the government and the city of Cape Town took too long to realize the extent of the problem. Fifty percent of participants explained that they were not scared of the water crisis but had to implement new water- saving strategies otherwise the municipality of Cape Town would have cut off their water supply. The literature revealed that too much politicking and too little sound planning Times live (2018) motivated the water crisis in Cape Town. About 40% of participants indicated that their business believed in sustainable entrepreneurship, which included financial development, longevity and sustainability of the business (Kyro, 2015: 40). A participant explained that one of the company values was to save water. The business was not forced to save water, but used sustainable entrepreneurship as a differentiating strategy for their business. Sustainability was deemed necessary to address over- consumption of water through cutting of resources and other avenues explored (Welter, 2012:959). The hospitality leaders were aware of the financial sacrifices to ensure environmental preservation that indicated tension between tourism development and sustainable tourism. When the Cape Town municipality announced a problem about the dams drying up, the majority of the businesses implemented new water-saving strategies by digging deep into their pocket to buy the new equipment. The participants confirmed that they started buying a lot of water and poor-saving equipment. Participant 1 went as far as telling that he was the first person to install the 60 wind energies for both businesses before the Hotel Verde in Cape Town Airport at an enormous cost. The respondents stated that they had closed the big swimming pools and only operated with the small swimming pools. The strategies mentioned includes closing the ice machines, 1 coffee shop was closed temporarily, use of disposable serviettes, reduced use of ice, use of ice bricks instead of ice machines, switching off

some ice machines, removed bath plants, timers in the showers, buckets in showers for reuse by house keepers, water bottles in rooms to collect used water to reuse water for gardens. The use of the Arc Aqua system that uses ultra -violent light, spray and disinfected water, reuse water, use big steamers instead of boiling to avoid using lots of water, bore- holes, reservoir tanks and massive water tanks were also undertaken to reduce water usage.

Compliance-based environmentalism is due to government rules and regulations whereby companies are forced to comply with mandatory environmental regulations. The regulations can improve internal efficiency in businesses through innovative resource productivity Kyro (2015: 43). The driving forces in the implementation of the business water- saving strategies were the regulations by the city of Cape Town and the hike in water tariffs for businesses from R26 to R40 per liters (Le Page, 2018). The literature also warned that it is crucial that fine dining restaurateurs pay attention to perceived quality in an attempt to meet customer expectations (Petzer & Mackay, 2014). The participants explained that there were a number of challenges to consider when working in the kitchen in a fine dining restaurant, especially health and safety issues. The majority of the respondents had bought water- tanks to reduce use of water from the municipality and to curb water usage. 99% of the participants implemented effective water saving strategies to sustain their businesses.

- b. What are the designed policies and procedures to guide business operations to ensure effectiveness of the above strategies for long-term sustainability?

*Participant 1:* “I came to SA 27 years ago and been in business for 26 years. I have always seen people wasting water and we were never cautious about the water crisis. The process of getting the message across to the business personnel drags quite a long tale as the clients and staff never realized the impact of running out of water. Nobody can really imagine the impact of not having water for fine dining restaurants so it is important that the business demonstrates to the customers that the business has done its homework. Just imagine that we use 4000 litres a day of water and we still save lots of water as well. We wash many plates, glasses for full wine service and dish-washers are running along. It is difficult to get employees to adapt to this because they do not see the whole picture behind these strategies. The staff requires constant reminders about saving water and unfortunately, I am unable to keep an eye on this. I have given the staff a guideline for saving water, although it is difficult to enforce and make it possible to customers”.

*Participant 2:* “The international travellers understand the water-shortage problem but they have certain expectations as they pay for fine dining at five star establishments, making it difficult to

effectively implement water-saving. The company utilizes a natural process to save water but no strategies are abiding the business to ensure sustainability”.

*Participant 4:* “The business paid a lot of money for all the new water-saving strategies although it would mean it is very high and impossible to be implemented by small businesses. There is no turning back, the business stands by its values to save water. When the water problem started, it was difficult to get a buy in from guests and well as from staff. It took the biggest education and lots of training to get staff to do it. The collaterals, initiative, visuals, posters and reinforcing the staff to follow the procedures. The staff also had to get each other to be accountable through educating each other about saving water to ensure sustainability. “I have confidence in our business and Cape Town has been awarded the best in implementing water- saving strategies to curb the water crisis shortage”.

The business will continue with water saving and this will sustain the business for a long-term and the hotel is confident that the strategies implemented are effective to sustain business for long-term as nothing will change the operational saving strategies.

*Participant 5:* “We always had water and we never put the water- crisis as a business priority and did not put any water-saving strategies in place. The business has very small menus and no high water consumption. The business is currently down, no customers and I think it is due to the economic downfall in South Africa”.

#### **4.8 Summary of the responses on policies and procedures on water-saving strategies**

The emphasis currently is the environmental consideration for any business practices to ensure long-term sustainability for businesses (Baldwin, 2009:xv). Agreeing with Venter and Rwigema (2004:108), to ensure that the businesses comply with the environmental regulations, well-trained employees are required to follow diligently the sustainable business strategies (Baldwin, 2009:41). Once the employees are championed in the sustainable program, the customer awareness program should be implemented through education and marketing, the use of signage within the restaurants to create awareness, flyers, and a website to educate customers (Baldwin, 2009:236). The respondents seemed to differ in getting the buy in from customers in ensuring that water-saving strategies were effectively implemented. Participant 2 feared that international travellers understood the water-shortage problem but they have certain expectations as they pay for fine dining at five star establishments, making it difficult to effectively implement water-saving. Participant 1 agreed with participant 2 stating that the process of getting the message across to the business personnel took long as the clients and staff never realized the impact of running out

of water and the staff required constant reminders about saving water. He further stated that unfortunately, “I have given the staff guidelines for saving water, although it is difficult to enforce and make it possible to customers”. Both participants agreed that it was difficult to get employees to adapt to this because they did not see the whole picture behind these strategies. The statement “Nobody can really imagine the impact of not having water” for fine dining restaurants was important so that the business could demonstrate to the customers that the business had done its homework and clearly indicated that the participants acknowledged the importance of sustainable entrepreneurship. The staff required constant reminders about saving water. Participants 3 and 4 confirmed that the businesses paid a lot of money for all these new water-saving strategies and could not be done by small businesses. It took extensive education and lots of training to get staff to comply. The collaterals, initiative, visuals, posters, and reinforcement was used to assist the staff to follow the procedures. The staff also had to encourage each other to be accountable through educating each other about saving water to ensure sustainability. About 90% agreed that it was a work in progress to educate and train staff and customers in preserving water, although the water-saving equipment was bought and implemented, long-term sustainability required a lot of training. About 40% of the restaurateurs believed that the implementation of water saving strategies should be in a manner that would not jeopardize the fine dining expectations of customers. 10% did not believe in saving water because the idea was that the business was too small.

## **Research Sub-question 2**

### **4.9 What are the barriers/ challenges to the business management strategy implemented?**

- a. Judging from your experience, what would you say are the challenges that the business is facing due to the new ways of cutting costs through water-saving strategies when it comes to customer satisfaction?

*Participant 1:* As a fine dining restaurant, having the responsibility to show the clients the sovereignty of fine dining, that includes the overall intact establishment. “When people come to your establishment, they have high expectations such as perfect hygiene, good service, no pressure, no illnesses due to lack of water, dishwashers working, including maintaining five star standards of fine dining came with challenges in adapting to the water-saving measures. It poses a challenge to the fine dining whereby customers go to the loo in numbers all at once, creating a

problem as we started telling the customers about the water problem, not to flush toilets i.e. if you have 70 customers a day and they all want to go to the loo it's not viable. If you are at a fine dining restaurant as a customer, you do not want to use a dirty toilet because you save water then go back to finish the main course meal. As a five-star restaurant, one cannot have a restaurant with stinking toilets due to saving water. Some customers would rather stay away from an establishment using water-shortage as an excuse. The paradox thing is that the city makes this water crisis our problem and we are not getting returns on our green investments. As a fine dining restaurant, we initially trained staff to use a lot of water as they have to change water for hygiene purposes, and changing ways to saving water is a challenge for fine dining restaurants. There is no help coming from the Cape Town city municipality besides being threatened, asserting that if we do not register the green saving systems, the city will not accept the implemented systems making it extremely difficult for our business survival. In turn, the Cape Town municipality does not even communicate with us after registering the water-saving systems/ methods even though they threatened us about the water crisis. I am disappointed that the city and the government are not doing anything to invest in this whereas we are working hard as businesses to attract tourism visitors to the country. After the world cup, we expected a lot and the water crisis has created dents in our businesses and was quite nerve wrecking. The visitors are coming to Cape Town because we offer good wine and food, not only the mountains, but without water, this cannot be successful and this is the result of a lot of mismanagement from the city/ government more than anything else. The speculated increased rates according to the value of the business, is the problem facing the businesses as the rates were increased based on the property values. I feel that we pay a lot of money to the city of Cape Town, regardless of what we do to save water and the future for our businesses is bleak. The electricity cuts were other contributing factors due to the water crisis causing visitors staying away from Cape Town. We are demotivated as we are not getting enough help from the city. It will take years to reverse the statement made by the city in April 2014 about Day Zero. The best thing that the country of South Africa can do to help businesses as seen in Dubai is the use of desalination plants as water is melting and it is doable but the country does not want to improve the infrastructure”.

*Participant 2:* agrees with participant 1 considering the water – crisis / restrictions. “The challenge we face is that it is tough to abide by restrictions, as you need to consider hygiene, health, and safety for a fine dining establishment. The suppliers of food/vegetables pre-wash their products but one cannot rely on assumption, as you cannot serve soiled food. The re-use of water i.e. using water from vegetables is a problem as that water from heavy soil cannot just be used, be careful

where that water was initially used, otherwise you will be spreading unhealthy bacteria. Often water cannot be discarded for cooking and cleaning of crockery. Since we deal with big quantities and volumes of customers, there are no measures on how we save water from the water- saving systems implemented. There are certain things that the business is unable to compromise for your guest's requirements from five-star standards". Again agreeing with participant 1, participant 2 stated that the perceived impression given to visitors about the water- pandemic in Cape Town reduced the visitor numbers during the water crisis.

Participant 2 emphasized that it is a tough decision to save water as one can only save water so much without compromising the required fine dining standards. There is no way of enforcing water-restriction usage for guests with high expectations for their monetary value in a fine dining restaurant. The closure of the big swimming pool made guests unhappy as they pay a lot of money, although small swimming pools were operational. "It is always about considering the amount of money that the guests pay and the guests are very clear about the expectations". The message perceived to the world about the water- shortage had a long-term effect on the businesses in CPT, especially for the farmers. The supply- chain was badly affected, challenged with the quality of the product, and could not use some of the suppliers due to loss in their businesses due to the cut- off in water-supply and some eventually had to close down their businesses. Although the business implemented water-saving strategies, Participant 2 believed that the water- crisis in CPT was over-analysed, although there was a genuine scare, it was overstated. Participant 2 closed by insinuating that the Tourism Industry was definitely affected by the overstated scarcity of water in Cape Town and this led to a reduction in visitor numbers.

*Participant 4:* Seemed to disagree with participants 1 and 2 stating that "the regular visitors were not having problems with water- saving strategies and we thought visitors would rather stay away from South Africa but it was not the case, visitors promised to come back again". In contradiction to the above statement, participant 3 further agreed with participant 1& 2 that the announcement of Day Zero in April 2014 made tourists that normally travel during this period decide not to come due to the water crisis scare. He further stated that the bad publicity by the media, showing people carrying buckets of water, created a very bad impression on visitors and they decided to stay away. The announcement of Day Zero in f March, and this is the Tourism busy month, caused the reduction in visitor numbers to Cape Town. This also affected the local travel and people would rather not come to CPT due to bad publicity from the media as it portrayed wrong images about the water- crisis. This also affected the local travel, people would rather not come to CPT. The restaurant businesses tried to do everything to make it clear that they will not run out of water



as they introduced new water-saving strategies. There was an impact of pricing on food supply, although there is no significance to this statement. “It is interesting to learn that you would think when buying meat, they had to send livestock to be slaughtered due to no food to feed animals so supporting locally worked well for the restaurants.

*Participant 5:* believed that the water crisis never existed and can confirm that during the period of the Day Zero scare, Cape Town lost visitors by 20-25% during the announcement of Day Zero. Things got worse in 2018- 2019, the business was bad, due to the water crisis scare, power- cuts, and xenophobia. “Personally, I believe that my business went down only due to load shedding and that was the biggest challenge the businesses faced”.

#### **4.10 Summary of the responses to barriers/challenges on the implemented strategies**

It is crucial for fine dining restaurateurs to pay attention to perceived quality in an attempt to meet customer expectations (Petzer & Mackay, 2014). The total tourism experience affirms that food service contributes to the overall tourism experience and that is a major determinant of the quality of a vacation experience for a visitor (Nield, Kazak & Legrys, 2000:376). Participant 1 explained that there was a fine line between ensuring that the fine dining restaurants succeed in showing the clients the sovereignty of fine dining .i.e. including the overall impact of the establishment, guests high expectations such as perfect hygiene, good service, as well as getting the buy-in from the guests to adapt to the water-saving measures. It is difficult to tell a customer about the water crisis. Careful consideration is required when running a five-star restaurant .i.e. one cannot have a restaurant with stinking toilets due to saving water. There are certain things that the business is unable to compromise for guests’ requirements from five-star standards. Supported by literature, the operational aspects of running a restaurant are important to its success. Maintaining operational standards such as hygienic standards and customer satisfaction, prove to be calamitous to the sustainability of any enterprise. The ineffective implementation strategies by restaurant businesses contributed to failure in maintaining operational standards (Nel et al., 2018). This posed the biggest challenge for a fine dining restaurant. There are also other challenges. Participant 1 stated that they are not getting returns on green investments. The businesses are required to register the green saving systems at Cape Town municipality, if not the city will not accept the implemented strategies. There is no help coming from the Cape Town city municipality besides being threatened, making it extremely difficult for business survival. The power cuts were also the biggest challenge, besides struggling with the water crisis. The

implementation of water-saving came with challenges as businesses had to shift the perception from the employees as they initially trained staff to use a lot of water as they have to change water for hygiene purposes and changing to saving water came with a challenge for fine dining restaurant employees. The message perceived by the world about the water-shortage had long-term effects on the businesses in CPT. The supply-chain was badly affected, challenged the quality of the product, and some of the suppliers could not be used due to loss in their businesses due to cut-offs in the water- supply. Participant1 felt that their businesses paid a lot of money to the city of Cape Town, regardless of what businesses do to save water, the future for their businesses was bleak. The bad publicity by the media, showing people carrying buckets of water, created a very bad impression on visitors and they decided to stay away. The respondents believe that Cape Town lost visitors by 20-25% during the announcement of Day Zero. Things got worse in 2018- 2019, business was poor, due to the water crisis scare, power-cuts, and xenophobia.

#### **4.11 The findings below are responses based on the impact on the financial performance theme**

##### **Research Sub- question 3**

##### **What are the effects on financial performance due to the water crisis?**

- a. What is the impact of high water- tariffs on the financial performance of the business?

*Participant 1:* expressed his frustration, stating that "if the city continues to make this water crisis our problem by increasing rates on us by 15% annually, as we pay a lot to the municipality, high electricity, high water tariffs and carrying on like this we will result in losing our businesses and I will have to reduce the staff turnover. As much as I am dedicated to my staff, that I have for a long time, some of them have been with the business for 26 years since it started, it is difficult for me as it means less revenue, less staff, and loss of business". Participant 1 felt that it has become an unrealistic foundation to start a business having to spend a lot of money, estimated at R800.000, to implement water-saving methods. "Before starting to compete with the rest of the world, it costs a lot of money that is a demotivating factor rather than the push for new creations. We lost 10 % of the business turnover each year since the water crisis in Dec 2017- 2019 March. The rates that I used to pay for 4 years was way less than what I pay now, the increased rates by municipality to 20% a year after evaluating our businesses for the purposes of rate increases is a problem because the higher the rates, the higher the rental. The business suffers and it is crazy to pay such exorbitant amounts and still maintain the business. Having to buy water tanks from

Yoyo business proved to be a rip-off as they charged exorbitant amounts of money during the water- crisis scare”.

*Participant 2:* The water-saving measures as stated above were implemented due to water-restrictions were obviously massive costs to the business although I don't have the figures to estimate. “The water- saving methods gave us enough water and we are not relying on municipality water, the business water allocation was not affected by the water crisis as we used our other sources of water- supplies”. The city could have cut water supply at any given time, but the business has enough water supply systems of its own as stated.

Participant 5: “The business did not have problems with high water bills although the water tariffs increased by 40% and we spent more money”. Participant 5 seemed to have experienced the high water tariffs but either chose to ignore it or the impact was not significant.

- b. What impact did the water crisis have on the dining capacity of the customers at the restaurant?

*Participant 1:* declared, that the top 20% of the customers decided to stay away due to the water crisis in Cape Town. “Having run the business for more than 20 years, year-to-year customers decided to stay away and rather went to Australia or other destinations. The staff turnover of 26 employees is not getting tips because there are fewer customers and not the right customers. The visitors that came to CPT were not for fine dining due to the water crisis. If the water-restrictions persist, I personally do not cope with this problem and in the long-term, the business will become unsustainable”. Participant 1 further stated that there was a loss of 10% in revenue since the water crisis was announced, because the fine dining clientele takes these things very seriously hence they will rather stay away from CPT due to the water- crisis. “The businesses are not doing well, having to keep going for the loyalty to the staff that have been working with me for more than 2 years as employment is scarce”.

Participant 2: The perceived image by the city regarding the water crisis had a negative impact on the visitor numbers, some visitors decided to stay away from Cape Town. “I believe that the water crisis situation was over analysed”.

*Participant 5:* believed that the tourist visitor numbers have reduced by 40% and the businesses are suffering not because of the water crisis but due to the fact that the economy was suffering. “We used to be very busy but now I can see the drastic change”.

- c. What impact has the water crisis had on the prices of buying and selling food from the suppliers?

*Participant 1:* explained, “Buying food also added more expense, increased prices from the supplies from vegetable gardens, the boreholes put the ground levels down so the city put the stop to it and had to recycle water used to wash vegetables for watering the garden”.

*Participant 2 :* “I was not negatively affected by the water crisis on the supply chain because finding new suppliers allowed re-negotiating of new prices and cutting off the middle-man was cost saving, although there were challenges with the quality of the product”.

*Participant 3 & 4* stated that there were no price changes on supply, but the implementation of new water saving methods cost the business a great deal even though the figures were unknown.

#### **4.12 The summary of the findings based on financial performance of fine dining restaurants.**

The perceived impression given to visitors by media about the water- pandemic in CPT reduced the visitor numbers during the water crisis. The businesses lost about 10 % of the business turnover each year since the water crisis in Dec 2017- 2019 March. Participant 1 estimated that an amount of R800.000 had been spent by his business to implement water-saving methods. The problem is the rates increase by 20% after evaluation of the businesses, because the higher the rates, the higher the rental. Having to buy water tanks from the Yoyo business proved to be a rip-off as they charged exorbitant prices during the water- crisis at massive costs to the business. There were high water bills although the water tariffs increased by 40% and the top 20% of customers decided to stay away due to the water crisis in Cape Town. The increase in water tariffs, according to the literature, to prevent the water- wastage problem, the government must increase water and energy prices to reflect the true cost of water and energy (Howe et al, 2012:4). The staff was not getting tips because there were fewer customers and not the right customers. Participant 2 stated that he lost 10% in revenue since the announcement of the water crisis because the fine dining clientele take these things very seriously, hence they will rather stay away from CPT due to the water crisis. Respondent 5 believed that visitor numbers reduced by 40% and the businesses were suffering, not because of the water crisis but because the economy was suffering. The change in suppliers had an impact on financial performance due to re-negotiation of prices and some farm suppliers shut down due to the water crisis. “Cape Town municipality

continues to make this water crisis our problem by increasing rates on us by 15% annually, we pay a lot to the municipality, high electricity, high water tariffs and carrying on like this we will result in losing our businesses and I will have to reduce the staff turnover,” affirms participant 1. Dapro (2015) revealed that restaurants that implemented water-efficient practices decreased their operating costs by roughly 11%, energy by 10%, and water use by 15% (PG&E, 2017). The hike in water tariffs for businesses from R26 to R40 per liter also added extra costs to businesses.

**Table 4:3 Responses Review**

<b>Financial effects</b>	Yes	No
Purchasing of new business operational equipment to save water	5	1
Increased water tariffs by the municipality	6	6
Bad publicity/ over-analysis about shortage (Day zero announcement) that chased away some visitors to Cape Town, leading to reduced dining capacity	6	6

The above table shows that the majority of businesses had to buy new water saving equipment. The high -water tariffs affected all businesses and the announcement of Day zero had a major impact in the dining capacity leading to loss of revenue.

#### **4.13 The view of the researcher on the research findings**

The Western Cape Province is known for being a region of water scarcity with a mean rainfall of about 348mm (Jansen & Schulz, 2006:7). Cape Town’s most rainfall is during the winter season, while the period between October and March is the dry season leading to the City’s authorities to restrict water usage by 30% (Jansen & Schulz, 2006:7). The studies indicated that there is a need for a conservative approach to water management to achieve future sustainable growth hence the businesses that rely on water for survival have to devise methods that will ensure customer satisfaction to make a profit. The study embarked on sustainable entrepreneurship. The restaurant participants unanimously agreed that the perceived impression given to visitors about the water- pandemic in CPT reduced the visitor numbers during the water crisis. The water-saving strategies were strategically implemented taking into consideration the fine dining restaurant expectations from customers. The majority of participants all agreed that the water crisis scare in Cape Town compelled their businesses to implement new business strategies to sustain the required water-saving and to achieve sustainable growth. The participants agreed with the theory that there had been “too much water politicking and too little sound planning” (Times live, 2018). The water crisis was believed to be real but it was portrayed as a massive problem by the media

causing a scare to the restaurant visitors traveling to Cape Town. This water-scare problem drove restaurateurs to practice sustainable entrepreneurship. The implementation of new business management strategies to curb the water crisis forced businesses to dig deeper into their pockets making it difficult for small businesses to survive, as the costs of buying new water-saving methods proved to be expensive. The municipality of Cape Town worsened the situation for the businesses by increasing the water tariffs, exerting so much pressure on the fine dining restaurant businesses. The increased water tariffs, 15% annually by the Cape Town municipality, posed a threat as restaurant businesses were generally among the most vulnerable businesses affected by the water crisis and high water tariffs (Darpro solutions, 2015). Some participants believed that the solution to this water crisis was the introduction of desalination plants, although they are very expensive. The threats from the municipality to businesses forced the restaurant entrepreneurs of fine dining restaurants to carry out new procedures and product/ service to create wealth under conditions of the water crisis challenges (Piperopoulos, 2018:190). Only one business from the restaurant participants interviewed, confirmed that they did not introduce water- saving methods because they are a small business and they did not have water-saving requirements, although the business was experiencing a downfall. The fine dining restaurants had to be strategic in implementing the new water-saving plans for long-term sustainability and to avoid customer dissatisfaction.

#### **4.14 Conclusion**

This chapter presents and discusses the research findings in detail and links the findings to the literature. The purpose of this chapter was to present the research findings from the qualitative study. The researcher achieved the objectives of this chapter by giving clear responses from all the participants of the fine dining restaurants. The findings are presented in a verbatim format to show that the writer did not manipulate the responses which are written exactly word for word. This way of presentation helps by showing the feelings of the participants about the water crisis and the severe impact of the water crisis on the fine dining restaurant businesses. The conclusions are finalised in chapter 4 and chapter 5 gives a summary of the conclusions and presents recommendations based on the findings for future studies.

## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5. Introduction**

While the findings were presented in detailed verbatim format in chapter 4, chapter 5 gives a summary of the findings with conclusions and recommendations. The recommendations are based on research participants' views on the water crisis as well as the views of the researcher. This chapter gives an overview of all the preceding chapters and draws conclusions from the findings. This chapter also provides recommendations for future studies.

#### **5.1 Summary of all chapters**

The study aimed to investigate the impact of the water crisis on the financial performance of dining restaurants in the Cape Town Metropole. The study achieved this objective by determining the strategies implemented by fine dining restaurants to curb the water crisis to sustain the businesses over the long term and to maximize profit. The study sought to determine the overall impact and provide recommendations to assist fine dining restaurateurs to sustain their businesses over the long term, despite the water- crisis future challenges.

##### **5.1.2 Chapter 1**

This chapter gives a rationale for the study by outlining the study objectives, research questions, problem statement, and an introduction to literature. This chapter outlines the research process followed by the study including the research methodology.

##### **5.1.3 Chapter 2**

This chapter reviews the literature in detail exposing the severity of the water crisis throughout the world and the impact that the water crisis has on the survival of tourism businesses that rely on water for survival. The entrepreneurial strength required to succeed in the market, while in the midst of the water crisis challenges, is also discussed. The chapter describes and discusses the relationships between the major variables of the objectives of the study.

##### **5.1.4 Chapter 3**

This chapter discusses in detail the research method and design of the tools used in collecting data in this study. The chapter gives details about the data collection tools used in the study and

explains the qualitative and quantitative approaches, including the reason why a qualitative approach was deemed necessary in this study.

#### **5.1.5 Chapter 4**

This chapter presents and discusses the research findings in detail and links the findings to the literature. The data collected was presented in verbatim response form to provide raw data as evidence that information was directly obtained from the participants and the responses were compared to draw up conclusions.

#### **5.1.6 Chapter 5**

The conclusions were finalized in chapter 4 and chapter 5 and gives a summary of the conclusions and presents recommendations, based on the findings, for future studies. The chapter also gives conclusions and recommendations based on the views of the researchers.

### **5.2 The summary of the findings from the study**

The research was motivated by the problem arising from businesses that rely on water for survival, since, due to the water crisis, some businesses were on the blink of closing. The study revealed that the restaurant businesses in Cape Town were harshly affected by the water crisis and forced to implement new water-saving strategies to ensure survival. The study also revealed that some fine dining restaurant businesses did not just implement new water- saving strategies freely, but were forced or suffered harsh penalties from the Cape Town municipality.

A review of the summary of the findings, based on the main and sub- objectives of the study:

#### **5.2.1 Research Main Objective**

To determine the effectiveness of the business management strategies implemented by fine dining restaurants, due to the water crisis, for customer satisfaction and profit maximization for long- term survival of fine dining restaurants in the Cape Town Metropole.

5.2.1.1 The majority of fine dining restaurants in the Cape Town Metropole ventured into sustainable entrepreneurship and ecopreneurship that helped restaurateurs develop dynamic capabilities in the environmentally threatened market.

5.2.1.2 The study revealed that the threats and harsh water tariffs by the Cape Town municipality motivated the implementation of water-saving strategies.



5.2.1.3 The majority of the participants revealed that despite newly implemented water-saving strategies, there are certain things that the business is unable to compromise for guests' requirements according to five-star standards.

## **5.2.2 Research Sub- Objective 1**

Identify the implemented business management strategies, due to the water crisis, for long-term survival.

5.2.2.1 90% of the fine dining restaurant participants in Cape Town implemented water- saving strategies, participant 2 was quoted as confirming that one of his company values was to save water. The business is not forced to save water, but uses sustainable entrepreneurship as a differentiating strategy for their business.

5.2.2.2 A participant declared that he was the first person to install the 60 wind energies for both his businesses at the Hotel Verde in Cape Town Airport and that it cost a lot of money. Other strategies include the use of the Arc Aqua system that uses ultra-violet light, spray and disinfected water, reuse of water, use of big steamers instead of boiling to avoid using excessive quantities of water. The businesses also installed bore-holes, reservoir tanks, and massive water tanks.

5.2.2.3 The majority of fine dining restaurateurs also bought water- tanks to reduce the use of water from the municipality and to reduce water usage. Introduction of a grey water system, several boreholes, and a main borehole, allowed a business to go off the water bill and avoid the use of municipal water. The strategies implemented are a clear indication of sustainable survival.

## **5.2.3 Research Sub- Objective 2**

To determine the barriers to the implemented management strategies due to the water crisis.

5.2.3.1 The fine dining restaurants were faced with a difficult task to implement water-saving strategies, taking into consideration the responsibility to show the clients the sovereignty of fine dining that includes the overall intact establishment. The implementation of water-saving came with challenges as businesses had to shift the perception of employees, as they initially trained staff to use a lot of water, as they have to change water for hygiene purposes, and changing to

saving water came with a challenge for fine dining restaurant employees. The restaurant guests' high expectations, such as perfect hygiene, good service, as well as compliance from the guests to adapt to water-saving measures, posed as a challenging factor during the implementation of water-saving strategies. Fine dining restaurants agreed that being a five-star dining facility means taking into consideration the guests' expectations and value for money, and the water crisis came as a challenge for implementing effective water-saving strategies.

5.2.3.2 Some fine dining restaurateurs claimed that after all the hard work of implementing water-saving strategies they still received threats from the Cape Town municipality. The restaurateurs also voiced their frustration claiming that they were not getting returns on their green investments from the Cape Town municipality as expected. The businesses are required to register on the green saving system of the Cape Town municipality, if not the city will not accept the implemented strategies. There was no assistance from the Cape Town city municipality, besides being threatened, which made it extremely difficult for the businesses.

5.2.3.3 The power cuts were also another big challenge, besides struggling with implementing water-saving strategies. The visitors that normally came during the season decided to stay away from Cape Town due to the announcement of Day Zero affecting the restaurant businesses in Cape Town.

### **5.2.4 Research Sub- Objective 3**

To determine the reduction in the financial performance of fine dining restaurants due to the water crisis.

5.2.4.1 Some fine dining restaurants confirmed that harsh water tariffs aggravated the implementation of the expensive new water-saving strategies by the Cape Town municipality and this affected the financial status of the fine dining restaurant businesses.

5.2.4.2 The hike in water tariffs for businesses from R26 to R40 per liters. Participant 1 voiced his frustration "Cape Town continues to make this water crisis our problem, by increasing rates by 15% annually".

5.2.4.3 The overstated condition of the water crisis by the media, as believed by fine dining restaurant participants, affected the tourism visitor numbers, and the reduction in Tourism visitor numbers financially affected the fine dining restaurants during the water crisis. The perceived

impression about the water-crisis in CPT made visitors stay away from Cape Town during this period. The businesses are believed to have lost about 10 % of their business turnover each year since the water crisis in Dec 2017- 2019 March.

5.2.4.4 The implementation of water-saving strategies such as purchasing equipment like water tanks, boreholes, Arc Aqua systems, green energy machines, underground battery packs, headlamps, etc. affected the bottom-line of some fine dining restaurants.

### **5.3 Recommendations**

These recommendations were from the researcher's point of view and some came from the participants of the research.

5.3.1 Restaurants suggested the introduction of Desalination plants to save Cape Town from a water crisis, although it would be expensive.

5.3.2 The restaurants also suggested that the assistance of the businesses by the government regarding the relief of financial obligations such as rates and water tariffs would help, as it was difficult for the small businesses to survive during the time of the pandemic.

5.3.3. The majority of businesses face challenges due to external and internal factors, usually external factors such as environmental and political issues, and the outbreak of diseases which are uncontrollable, but businesses should have contingency plans and funds to survive during such pandemics.

### **5.4 Study Limitations**

5.4.1. The fine dining restaurant owners / managers are often very busy and it was difficult for me to arrange their participation in the study. The majority refused to assist because they claimed to be very busy due to the nature of their business.

5.4.2. The restaurants chosen were fine dining restaurants in the Cape Town Metropole only, due to financial constraints and time.

5.4.3 The study ended with a very small sample frame due to lock down and other fine dining restaurateurs refused to participate in the study.

5.4.4 Some of the restaurant owners and managers were foreign nationals and 1 participant was deaf, thus the language barrier was a challenge.

5.4.5 The fine dining restaurant businesses are a chain of businesses, i.e. one individual owns/manages 2 to 4 restaurants. I ended up interviewing one participant for 2 to 4 restaurant establishments.

Future studies are required to investigate the impact of water crisis on fine dining restaurants in South Africa.

## **5.5 Conclusion**

Chapter 5 provided a summary of the conclusions and presented recommendations, based on the findings, for future studies. The chapter also provided conclusions and recommendations based on the views of the researchers.

The study aimed to investigate the impact of the water crisis on the financial performance of dining restaurants in the Cape Town Metropole. The study achieved this objective and managed to determine the strategies implemented by fine dining restaurants to curb the water crisis to sustain the businesses for long-term and to maximize profit. The research was motivated by the problem arising from businesses that rely on water for survival, since, due to the water crisis, some businesses were at the blink of closing. The study further sought to determine the overall impact and provide recommendations to assist fine dining restaurateurs to sustain their businesses over the long-term, despite the water- crisis' future challenges. The study answered the three main research objectives in determining the impact of the water crisis on the financial performance of fine dining restaurants.

The study confirmed that the water crisis was inevitable due to environmental challenges. The water crisis came as a warning for the fine dining restaurants and all businesses that rely on water for survival. It is important to note that the approach to challenges for any business determines its success. Some businesses chose to venture into sustainable entrepreneurship to create a competitive edge to curb the water crisis, while some restaurants did not make it and eventually closed down. The study also revealed that the restaurant businesses in Cape Town were harshly affected by the water crisis and forced to implement new water- saving strategies to ensure survival. Restaurant entrepreneurs did not just implement new water- saving strategies freely, but were forced or suffered the harsh penalties from the Cape Town municipality. Some fine dining restaurants confirmed that harsh water tariffs aggravated the implementation of the expensive new water-saving strategies by the Cape Town municipality and this affected the financial status

of the fine dining restaurant businesses. The publicity by the media on the water crisis contributed to the reduction of the numbers of visitors to Cape Town during this period.

Therefore, the study has managed to establish the impact of the water crisis on the financial performance of fine dining restaurants in the Cape Town Metropole. It is recommended that a future study be conducted on the impact of the water crisis in South Africa as a whole. The water crisis pandemic is an environmental challenge that came as a warning for the fine dining restaurants and all businesses that rely on water for survival. Therefore, the researcher concluded that the study has managed to establish the impact of the water crisis on fine dining restaurants in the Cape Town Metropole.

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## 5. APPENDIX A: RESEARCH QUESTIONNAIRE

### Purpose

The purpose of this study is to determine the impact of the water crisis on the financial performance of fine dining restaurants in Cape Town and to identify long-term adaptive methods implemented to boost business for long-term survival to ensure customer satisfaction and to maximize profit. The questions guiding this research are based on determining the financial performance of fine dining restaurants in the Cape Town Metropole during the water- crisis and to determine the effectiveness of the business operational strategies implemented by fine dining restaurants in the Cape Town Metropole to ensure customer satisfaction and to maximize profits

### APPENDIX A: - Questionnaire

Research Questions	Interview Guiding questions
<p><b>The research Main Question</b></p> <p>How has the water crisis/restrictions impacted the customer satisfaction levels and profit maximization for long-term survival on fine dining for the restaurant?</p>	
<p><b>Research Sub- questions</b></p> <p><b><u>Sub- question 1</u></b></p> <p>What are the business management strategies implemented during the water restrictions/water crisis for long-term existence and which operational procedures are in place to guide employees towards achieving a sustained existence?</p>	<ol style="list-style-type: none"> <li>1. As the manager/owner of the fine dining restaurant, what methods are implemented to guide employees as well as customers to maintain operational costs through water –saving?</li> <li>2. What policies and procedure are designed to guide business operations to ensure effectiveness of the above strategies for long- term sustainability?</li> </ol>



<p><b><u>Sub- question 2</u></b>  What are the barriers/challenges to the business management strategies implementation?</p>	<p>3. Judging from your experience, what would you say are the challenges that the business is facing due to the new ways of cutting-costs through water- saving strategies when it comes to customer satisfaction?</p>
<p><b><u>Sub- question 3</u></b>  What are the effects on financial performance due to the water crisis?</p>	<p>4. What is the impact of high water- tariffs on the financial performance of the business?  5. What impact did the water crisis have on the dining capacity of the customers at the restaurant?  6. What impact has the water crisis had on prices of buying and selling food from the suppliers?</p>

**APPENDIX B: - Ethical Clearance**




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## APPENDIX C: - GRAMMARIAN CERTIFICATE

25<sup>th</sup> May 2021

### GRAMMARIAN'S CERTIFICATE

This is to certify that the undersigned has reviewed and went through all the pages of the thesis entitled: **“IMPACT OF WATER CRISIS ON THE FINANCIAL PERFORMANCE OF FINE DINING RESTAURANTS IN THE CAPE TOWN METROPOLE”** of the student, **NOBESUTHU MAGIDA**, as against the set of structural rules that govern the composition of *sentences*, *phrases*, and *words* in the English language.

Signed:



MS RA Basson (Research Psy)  
ESL Academic proofreading and editing  
Email: renedabasson@gmail.com  
Cell: 0769332281

# APPENDIX D: - TURNITIN REPORT

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