

The impact of 'Day Zero' on the Western Cape wine industry: A qualitative analysis into the perceptions and attitudes of students towards the allocation of municipal water under 'Day Zero' conditions.

Author: Clare Burger

Student Number: 14018368

Course Code: HSB421

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Navigator: Franci Cronje

Supervisor: Monika Edwards

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I hereby declare that the Research Report submitted for the BA Honours in Strategic Brand Communications degree to The Independent Institute of Education is my own work and has not previously been submitted to another University or Higher Education Institution for degree purposes.

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ABSTRACT:

“We will know the worth of water when the well runs dry.” Benjamin Franklin

The Western Cape has been experiencing extreme drought conditions since 2015. In order to ease the pressure placed on the water supply, municipalities across the province will continue to place higher tariffs on water consumption to encourage South Africans to reduce their use of the municipal water supply.

The drought has been afflicting most of the agricultural and many of the urban sites of the Western and Eastern Cape and as such all non-essential consumption is being assessed in order to determine its relative priority status. An investigation was conducted through in depth interviews with student wine consumers in order to determine how consumers react to the concept of water prioritisation, should ‘Day Zero’ come into effect. By looking at the allocation and consumption of municipal water towards wine farms within the Western Cape, the research set out to understand the impact these perceptions will have on the overall wine industry within South Africa. The problem occurs for winemakers within the region, as growers will face some concerns when it comes to prioritising wine farming in the overall context of agriculture.

The most significant results that stood out from this research study was that consumers face ethical considerations when arguing for the rights of municipal water to wine farms over other, more essential agricultural sectors and as a result, look unfavourably towards these brands.

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SECTION 1:

INTRODUCTION

1.1. Background and context of study

This research attempts to explore the perceptions and attitudes consumers have on the brand image of wineries within the Western Cape. A key focus will be placed on understanding consumers attitudes towards the prioritisation of municipal water to wine farms over other agricultural farms, should 'Day Zero' become a reality. The aim of this research is to determine the impact student's perceptions have on the overall brand image of wine farms operating in the Western Cape.

The Western Cape has been experiencing extreme drought conditions since 2015, with annual rainfall dropping from 511.5 mm in December 2014 to 153.5 mm in December 2017 (The Climate System Analysis Group). As of May 2018 the major dam supplying the City of Cape Town with potable drinkable water sits at a low of 21.4%. (Western Cape Government)

In order to ease the pressure placed on the water supply, municipalities across the province will continue to place higher tariffs on water consumption to encourage residents to save water. 'Day Zero' would be declared when the water level of the city's major dams reaches 13.5%. When this occurs, municipal water supplies would be largely switched off, and residents would rely on water collection points around the city to collect a daily ration of 25 litres of water per person.

The drought has largely been affecting most of the agricultural sites of the Western Cape, as a result, all non-essential consumption is being assessed to determine its relative priority status. (Fridjhon, 2018) The problem occurs for winemakers within the region, as growers will face some mid to long-term concerns when it comes to prioritising grape farming in the overall context of agriculture. Although the wine industry is a major contributor to the economy of the South Africa, contributing 4.6% to the provincial GDP, it can be argued that it is not a commodity in times of extreme drought. Therefore, wineries within the Western Cape may have difficulty arguing for its water rights in the face of the demands of other, more essential consumers. For this reason, consumers may feel the allocation of water towards wineries is non-essential in times of water crisis, and thus may develop negative perceptions of the winery as a brand.

Should consumers look unfavourably on certain wine producers, their decision to purchase their products may change and thus ultimately affect the profitability of the Western Cape wine industry.

1.2. Problem Statement

Water prioritisation will become a detrimental issue to all South Africans, should 'Day Zero' come into effect. This is a problem that will affect all industries not only the South African wine industry. The problem is to determine the effects of this issue on the South African economy, by focusing specifically on the wine industry and how consumer awareness and brand image plays a role in the success or failure of these businesses.

This research aims to determine how consumers react to the concept of water prioritisation in times of severe drought by looking at the consumption of municipal water towards wine farms within the Western Cape. There is a steady trend toward environmental consciousness for South African citizens, however, municipal water allocation toward non-commodity agricultural industries is a factor that has not yet been measured when assessing brand image.

1.3 Purpose Statement:

The purpose of this study is to explore the perceptions students, residing in Cape Town, have on the overall brand image of wineries (in the Western Cape) in times of extreme drought.

The research will focus how consumers react to the concept of water prioritisation, if 'Day Zero' comes into effect. By looking at the consumption of municipal water towards wine farms within the Western Cape, the research will seek to understand the impact these perceptions will have on the overall wine industry within South Africa and ultimately the South African Economy.

South Africa is the 8th largest producer of wine globally, in 2016, the wine industry contributed R42 145 million in terms of GDP to the national economy. This was equivalent to 1.8% of the total GDP of South Africa that year. With respect to the Western Cape, the contribution to GDP was calculated at R19 287 million, equating to an approximate contribution of 4.6% to the total provincial GDP of the Western Cape in that year. (2016 SAWIS)

Through this research I aim to determine the effects of water prioritisation, in extreme drought conditions, on various factors such as brand image, non-commodity agricultural industries and the South African economy. A specific focus will be placed on water allocation to agricultural businesses such as wine farms.

1.4. Rationale

The start of 2018 has been difficult for many water dependent industries throughout the province, specifically agricultural farms. A lack of rainfall in the Western Cape of South Africa has resulted in an undersupply of water for irrigation on crops. (Menon, 2018)

This research aims to determine whether or not the brand image of wineries will decline, (resulting in loss in revenue) due to the prioritisation of water to non-commodity industries during extreme drought conditions. It is important to determine whether or not the allocation of water as a precious resource will have a negative impact on the brand image of wineries and to what effect this image will have on overall the wine industry in South Africa.

Currently, there is very little research on this topic, however, the impact of a negative brand image on wine farms could be disastrous for the Western Cape. The decline in wine yields due to the drought has resulted in a 50% decrease in wine production provincially as of May 2018 (Fridjhon, 2018). Should consumers feel negatively towards the industry due to over consumption of water in drought conditions, the wine industry as a whole could suffer, thus affecting the South African economy in greater context.

Water scarcity could lead to conflict between communities and nations as the world is still not fully aware of the water crisis many countries face as a result of climate change.

The latest report from the U.N. Intergovernmental Panel on Climate Change (IPCC) predicts a rise in global temperature of between 0.3 and 4.8 degrees Celsius by the late 21st century. Countries such as South Africa are likely to be hit hard by global warming, which will bring more disastrous weather conditions such as droughts, ultimately leading to serious water shortages and affect agricultural output and food security. It is vital to determine how water prioritisation

will affect the attitudes of individuals as it is an issue that will likely affect South Africans in the future.

1.5. Research Objectives and Questions

Research Objectives

The overall aim of this research is to determine the perceived brand image of wineries based on students' knowledge of the prioritisation of municipal water, should the Western Cape reach 'Day Zero.' In addition, this research aims to:

- a) Explore the psychological aspects such as attitudes, perceptions and influences of the drought on students.
- b) Understand how students feel towards the prioritisation of municipal water to wine farms over other agricultural industries.
- c) Investigate how the brand image of wine farms will be impacted by the drought.
- d) Discuss the potential implications of these perceptions on the overall context of wine farming in South African agriculture.

Research Questions:

Primary Research Question:

- a) Should the Western Cape reach 'Day Zero', what is the perceived brand image of the wine industry based on students' knowledge of the prioritisation of municipal water to wine farms?
- b) How will this affect wine farming in the overall context of agriculture?

Secondary Research Questions:

- a) What are students attitudes towards the allocation of municipal water in times of severe drought?
- b) How do students feel towards the prioritisation of municipal water to wine farms over other agricultural industries?
- c) What brand perceptions do students have towards wineries that use municipal water before and after the drought.
- d) What are the implications of negative brand perceptions on the overall context of wine farming in South African agriculture?

SECTION 2:

LITERATURE REVIEW

2.1. Introduction

This paper aims to discuss the elements of brand identity and brand image and what the meaning of each concept is. Various theories will be utilised as a framework to understand the link between consumers perception of wineries, in the Western Cape, and the prioritization of water in times of drought. Due to the nature of this study, very little literature has been conducted in relation to this topic, as a result, various concepts and theories will be discussed and used as a background for the intended research. In order to determine a correlation between brand image and consumer perception, the Environmental Consciousness Theory will be discussed, as well as the Cognitive Approach Theory. The purpose of this study is to explore the perceptions students, residing in Cape Town, have on the overall brand image of five wineries (in the Western Cape) in times of drought.

Finally, this research seeks to understand the impact these perceptions will have on the wine industry within South Africa and ultimately the South African economy.

2.2. Conceptualization of key terms

- a) **Water Restrictions:** Restriction levels or stages are put in place by governments or organisations in order to reduce the amount of water used by residents of a given area during drought.
- b) **Priority Status:** The governance and management of the remaining water supply should the Western Cape reach 'Day Zero'. Priority status will be established by order of importance or urgency.
- c) **Brand Image:** the current view of the customers about a brand. It can be defined as a unique bundle of associations within the minds of target customers.

- d) **Brand equity:** “the commercial value that derives from consumer perception of the brand name of a particular product or service, rather than from the product or service itself.” (Webster Dictionary)
- e) **Consumer perception:** A marketing concept that encompasses a customer's impression, awareness and/or consciousness about a company or its offerings. (Business Dictionary)
- f) **Value proposition:** A value proposition is a promise of value to be delivered, communicated, and acknowledged. It is also a belief from the customer about how value (benefit) will be delivered, experienced and acquired.
- g) **Water Prioritisation:** The evaluation of water allocation to various divisions such as agriculture, urban developments, residential etc. and ranking them in their order of importance or urgency.
- h) **Water stress:** is a measure of the amount of pressure put on water resources and aquatic ecosystems by the users of these resources, including the various municipalities, industries, power plants and agricultural users.
- i) **Food scarcity:** A shortage of food which may happen when not enough food is produced, such as when crops fail due to drought, pests, or too much moisture. The problem can also result from the uneven distribution of natural resource endowment for a country, and by human institutions, such as government and public policy.

2.3. Conceptual / Theoretical Framework

2.3.1 The perception of Brand image through Brand Identity.

According to Aaker and Joachimsthaler (2009), “Brand identity is the way that a brand should be perceived by its target audience based on the core attributes communicated by the brand.” Brand identity is multidimensional, and it is important for a brand to have a strong brand identity as this is what will create relevance for the brand in the marketplace (Konecnik & Go, 2007). Brand identity can also be described as a form of organisation identity that is expressed by a set of commonly shared values, competencies, origin, vision, communication style and behaviour (Wood, Christmann & Alexander, 2015).

When organisations set out to create the brand identity, they need to ensure that they have a clear understanding of the target audiences that they are hoping to attract. It is important to understand these consumers because these are the consumers that are going to interpret the brand identity and form an opinion about the brand. A clear brand identity creates a value proposition for the consumer that is comprised of functional, emotional and self-expressive benefits.

Brand image is the result of brand identity. Brand image can be best described as, “an external perspective in terms of the brand experience of consumers” (Christmann et al, 2015). Le Roux & Du Plessis (2014) describe it as the perceptions that stakeholders form about a brand, according to the attributes associated with it. Lastly it is seen as consumer perceptions, encompassing a set of beliefs that consumers have about the brand. (Nandan, 2005:264). Therefore it can be said that brand image is based entirely on the consumers’ perceptions and experiences of the organisation or company based on the brand identity.

In order for a brand to be successful, it first needs to recognise any issues that are affecting brand perception and image. Consumers form perceptions of brands based on their experiences with the brand, people will use their own interpretations and respond differently to brands, this subjective evaluation results in the formation of brand image in the mind of the consumer (Nandan, 2005).

With regards to this research, it is vital to understand the concept of brand identity and image in

order to distinguish the perceived image of wineries that utilise municipal water during a drought. H1: The effect of water prioritisation in times of severe drought is expected to alter the perceived brand image of the wine industry within the Western Cape. Based on factors such as commodity, consumers will face ethical considerations when arguing for the rights of water to wine farms over other, more essential agricultural sectors. It is for this reason that Brand Image play a key role in this research.

2.3.2. Influencing Brand Image:

There are many aspects that may influence the consumers' perceptions of the brand and customers may value specific types of brand image (Sonnier & Ainslie, 2011). It is important for the wineries operating in the Western Cape to bear in mind that their brand's worth is intimately tied to their consumers reaction to their business operations, products and services. Aspects that may influence the consumer's view of a particular brand may vary but could be due to the assumptions, attitudes and beliefs of consumers (De Chernatony, 2010).

2.3.3. Environmental Consciousness

Environmental consciousness is a concept reflecting a person's readiness to do something to their own environment. According to Lin, and Huang, the process of developing environmental consciousness requires time and a change in attitudes and purchasing habits, therefore, the relationship between environmental consciousness, attitude and purchase intention should be monitored in relation to this research.

With the rapid growth of the economic environment, the earth's resources have been largely consumed and damaged. Thus, forcing consumers to reconsider the impact of development on society and natural environment. In the Western Cape alone, climate change has resulted in severe drought conditions, making water a precious resource in desperate need of conserving. Under the circumstance, many people have called on corporations to fulfill their corporate social responsibilities. Corporate social responsibility is whereby companies integrate social and environmental concerns in their business operation.

Ariffin, Yusof, Putit, and Shah found that the positive relationship between environmental consciousness and purchase intention towards green brands. Several studies have examined the influence of environmental consciousness on the green products purchase intention, thus it is hypothesized that: H2: Environmental consciousness significantly influences students purchase intention towards green brands. This theory indicates that the knowledge of high municipal water consumption by wineries operating in the Western Cape will have an effect on the purchase intention and brand image of consumers. Specifically, the prioritization of municipal water to non-commodity agricultural sectors during drought conditions.

Environmental consciousness is defined by Schlegelmilch, Bohlen, and Diamantopoulos as the ability to create a positive attitude and to develop habits that will reduce their environmental impact. Due to the effects of a water shortage on the environment during drought conditions, there is potential for students to develop environmental consciousness in relation to water conservation, ultimately shaping their brand image of the wine industry.

Han and Yoon (2015) have applied the Model of Goal-directed Behavior (*Figure 1*) to investigate consumers intention with green brands, and found that a consumer's awareness to the environment, perceived effectiveness, eco-friendly behaviour, and reputation has a large effect on eco-friendly purchase decisions. Most importantly, the study has also shown that the awareness to the environment and perceived effectiveness will not only influence the consumers daily eco-friendly behaviour but also consumer attitudes towards environment.

The theory illustrates that customers will buy a product or service to achieve their desired values. Therefore, consumers with a higher level of environmental consciousness will choose to purchase from green brands because it will bring satisfaction of personal value. In other words, a winery that makes use of less municipal water would generate a positive brand image that would encourage consumers' intention of buying.

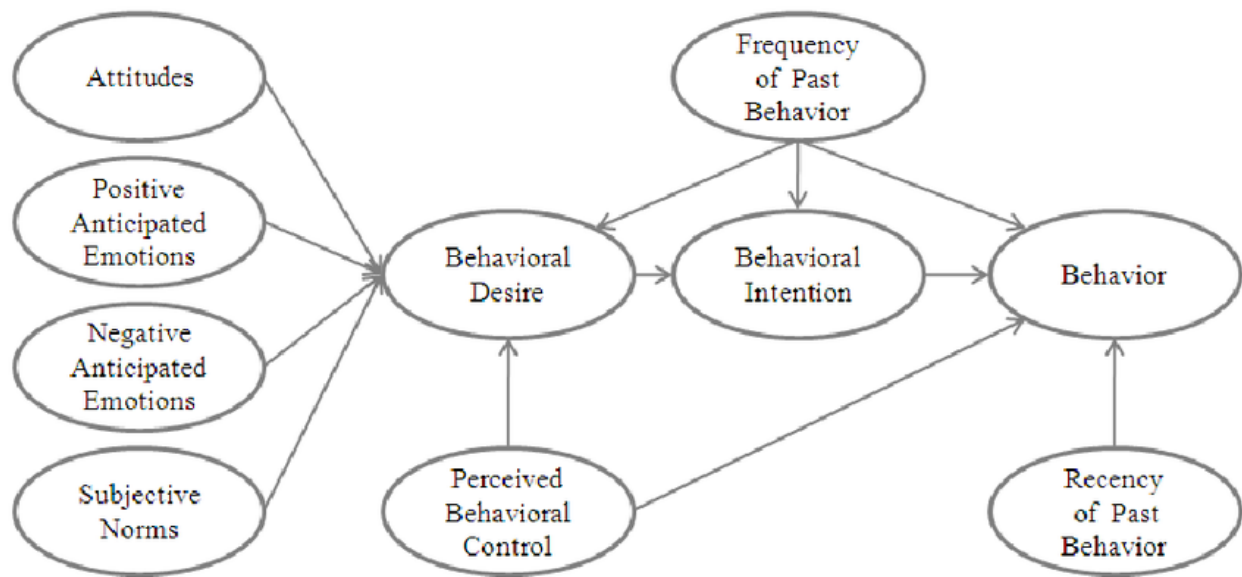


Figure 1: Model of Goal-directed Behaviour

2.3.4. Cognitive Approach

Cognitive approach is able to explain complex behaviours and responses that are given after an action is made and an experience gained. This approach believes that the customer is active in making rational decisions based on information collected (J. Bray, 2013). Cognitive consumer behaviour models usually describe how consumer behaviour is formed and constructed (M. Moital, 2007). These models explain which elements should be investigated in order to gain understanding about the outcomes of the actions made. The Cognitive Dissonance Model (Figure 2) are usually applied to measure certain customer responses about experience they have gained. With regards to this research, students cognitive decision-making behaviours will be assessed in order to make sense of the motives behind student's actions in relation to wineries in the Western Cape.

One of the revisions of the dissonance theory is related to the "self-concept". Aronson (1968) argued that dissonance is the result of the conflict between people's self-concept and their actions. According to the author, people try to preserve a positive sense of themselves and moral and dissonance is created if they act in a way that contradicts with how they perceive themselves. In relation to this research, it can be argued that consumers who purchase

products from brand that are considered 'non-green' may experience cognitive dissonance due to internal conflict and as a result, will alter their purchase decisions in the future to avoid internal conflict.

The CBT Model

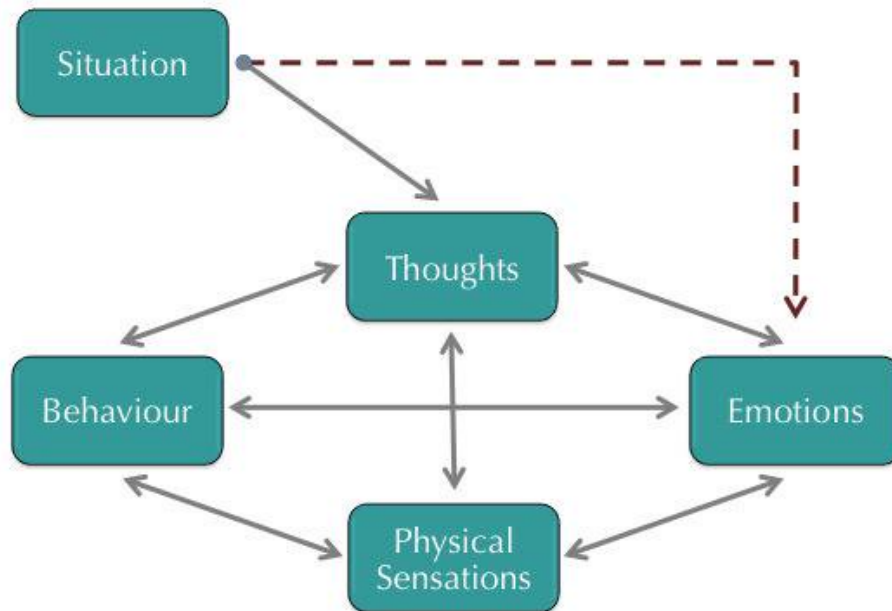


Figure 2: The Cognitive Behavioural Model

2.4. Discussion of Previous Literature:

Based on the above theories, this research will seek to explore previous literature surrounding the theories in relation the research question.

2.4.1. Drought on the Wine Industry:

Drought is a regular and recurring event that has economic, social and environmental implications for South Africa (Rouault and Richard, 2003). One of the arguments posed by many studies (i.e. Ramos and Martinez-Casasnovas, 2010a; Orduna, 2010) indicates that increases in temperature will have a negative effect on grape yields; however, this is not always the case. As evident in studies by Jones et al. (2005) and Lisek (2008), increases in temperature have resulted in positive effects on the grapevines. Although smaller, more concentrated grapes can benefit a handful of producers of high-end wines, the shrinkage of grapes due to high temperatures threatens to cut the profitability of wine, which accounts for about 60% of South Africa's wine exports.

Vineyards are not the only demanders of water in the industry as wineries need large portions of quality potable water for washing purposes. At the end of the dry winter in 2017, municipalities hand-delivered warnings to all wineries indicating the maximum allocation of water they will be allowed for wine production and irrigation: a staggeringly low 20 000 litres per month.

Many farms and wineries have used alternative methods to increase their water portions such as boreholes and other alternative natural supplies. Cape Point Vineyards announced recently that by harnessing mountain water, the farm is now completely off grid from Municipal Water. Although a great feat, there are many other wine farms that do not live in the mountain regions and are unable to extract borehole water, thus solely relying on municipal water for production.

2.4.2 Crop Management Adaptation:

In order for wine farmers to adapt to the negative impact of drought events, they will have to optimise their water management practices to ensure that they get an optimal output from each vine (Bindi and Howden, 2004). Farmers' changing from spray irrigation to drip irrigation can initiate a significant difference in a warmer climate. Since the Western Cape experiences high temperatures in summer, spray irrigation is not always sufficient due to large amounts of the allocated water being evaporated before even reaching the crops. Changing to drip irrigation conserves a significantly larger amount of water, as the water drops directly to where the vine roots are situated thus optimising the available water for the grapevine (Caswell and Zilberman).

Drought in the Western Cape will require a massive change in the current water management practices for each wine farm. Irrigation alone may be increasingly more difficult if dam water levels are low. From 2005 to 2025, there will be an increase in crop water demand during spring, as well as an 8% increase in overall quantity (Marshall and Utset, 2000). This means that irrigation management will need to change to optimise it under these new conditions. In a worst-case scenario where optimal management practices are not adequate in countering the potentially negative effects of drought, the wine farmer will have to substitute either cultivars or crops which will have huge impact on the business as well as the overall wine industry with South Africa. Those who have access to water on their own land through dams, boreholes etc. will have a greater chance of withstanding the drought.

2.4.3 Brand positioning of wine during a drought:

Kotler and Keller (2012) defined positioning as the task of creating a company's offering and its image in such a way that it captures a unique place in the minds of the specific market they choose to target. Therefore, the main objective of brand positioning is to embed the brand in customers' minds. Successful brand positioning results in the development of customer focussed value propositions to convince the target market to buy the product and ultimately increase the benefit of the brand to the company. (Kotler & Keller 2012)

As it pertains to the wine industry, Gooner (2001) noted that positioning forms part of the marketing strategy and that all areas of the marketing mix must be incorporated, including

decisions related to the product, price, packaging, physical distribution, and promotion. De Chernatony, McDonald, and Wallace (2010) agreed that effective branding involves strategic planning and is applied across the whole marketing mix. During times of drought, wine producers will have a harder time positioning their products due to factors affecting the production of the wine. As water levels decrease, the cost of irrigation and wine production increase, thus affecting areas of the marketing mix, such as price and product (quality). Although South African wines are known to be relatively inexpensive compared to other countries, students may develop negative attitudes towards these brands due to the increased price bump and dwindling quality.

2.4.4 Brand knowledge of wine:

Brand knowledge can be defined as the “thoughts, feelings, images, experiences and beliefs associated with a brand” and brands must promote persuasive, positive and distinctive brand connections with their consumers (Kotler and Keller 2012). It is further important to understand the content and structure of brand knowledge as it influences what brand memories resonate with a consumer when exposed to the marketing of that particular brand (Keller, 1993).

Vigar Ellis, Pitt, Caruana, and Bruwer (2015) found that consumers with objective wine knowledge are more likely to take part in experimental wine purchasing. In addition, more knowledgeable wine consumers are more likely to purchase wine from specialist wine stores or directly from the wine estate instead of wholesalers and they tend to be less price sensitive. At the same time, brand knowledge is known to influence consumers’ reactions to brand exposure and to ascertain whether certain wines will be chosen over other wine brands (Vigar Ellis et al., 2015). In relation to this study, Vigar Ellis’s theory may indicate that students with knowledge of water prioritisation during the drought conditions are susceptible to brand change. Wines that would usually fall part of the consideration phase in the consumer decision journey may no longer be considered and thus ultimately affect the image of the brand.

2.4.5. Demographic and behavioural factors:

In addition, demographic and behavioural factors have shown to be important variables in the analysis equations. Research studies investigating the behaviours of consumers and buyers have found definite links to the consumer's knowledge about wine, their involvement with the product and their demographic variables. Knowledge about wine, often defined as a consumer's perceived expertise, has been found to be a significant attribute when evaluating wines for intended purchase (Perrouty et al., 2006). Should demographic and behavioural factors play a role in students purchase decisions towards wine, a variety of students from different backgrounds will need to be interviewed in order to gain consistent and accurate results. Therefore, students from all demographic backgrounds will be considered for this study.

2.4.6. Water Prioritisation:

There are some uses of water most people would consider of highest importance. Public water supply is essential for services such as domestic water use, sanitation, fire protection and other services that protect and preserve public health, welfare, and safety.

In order to prepare for a low rainfall season, water management plans need to be set in place. These plans set out how the Department of Water and Sanitation will continue to meet their duties to supply adequate quantities of drinking water during drought periods while protecting the environment. The plans contain a series of trigger points for action by the department. The actions taken depend on the severity of the drought and include such measures as restrictions on non-essential use.

Public water supply is an essential service on which consumers are totally reliant and so must be prioritised over other uses. Having said that, during droughts, measures should be taken to ensure that consumers use water wisely and, if needs be, to restrict non-essential uses. That is why under the current drought planning system, uses of public water supply can be restricted through temporary use bans (water restrictions), and as the drought gets more severe water can be prioritised to certain areas according to its relative priority status.

Priorities for achieving sustainable water services:

Within business, consumers focus on commodity products and specialty products, specialty products are more highly valued economically than commodity products. In this research, water is currently viewed as a commodity product. However, if South Africa as a country wants water to be valued in the future, it needs to be rebranded into a specialty product. As a first step, researchers need to identify what water means to a particular community. For example, what water means to students living in the Western Cape. Will they cease to exist if there is no source of clean water for that community, or will there be increased cultural pressures on these individuals if they do not have access to clean water at a common tap?

When the water supply and lack of water quality create inhumane, unsafe conditions, then water rights become a priority. However, these trade-offs transcend human needs to also include environmental needs. When the discussion is about human rights, it becomes ideological as many constitutions give priority to human consumption. However, it can be difficult to separate ideological needs from real needs within this context. For example, in Spain, there had been an argument whether or not there should be transfer of available water from the north to south region. The southern regions use it for irrigation to support their economic rights, and the northern regions use it to support the environment. These often-conflicting rights become the challenge for managing water services and thus need to be considered for this research paper.

The number of countries that are classified as water-scarce or water-stressed is projected to increase from 31 in 1995 to 48 in 2025 and to reach 54 countries in 2050. At the same time, the number of people living under water-scarce or water-stressed conditions will increase from 460 million in 1995 to 4 billion in 2050 (Hinrichsen et al., 1997). The implications of this scarcity are serious for global stability, food security, and health. In addition, global use of water has rapidly increased in this century for agricultural, industrial, and municipal purposes (Figure 3).

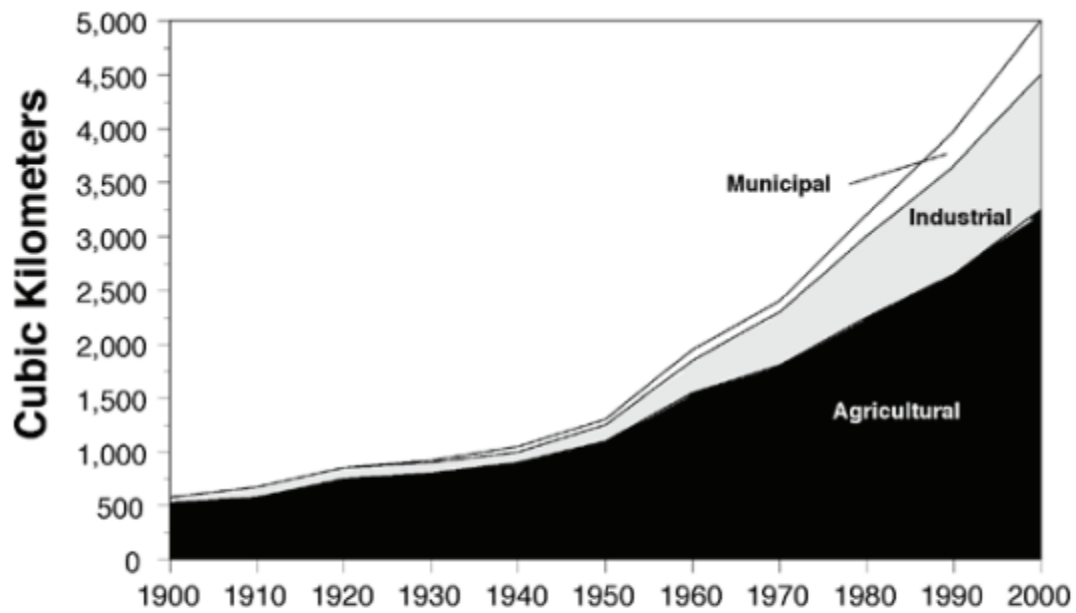


Figure 3: Global Annual water withdrawal sector. (1900- 2000) The rate of global water use has increased rapidly in the past century, specifically for agricultural purposes. Source: Worldwatch Institute, *Imperilled waters, Impoverished Future: The deadline of Freshwater Ecosystems*. www.worldswatch.org.

2.5. Conclusion:

Due to the nature of this study, very little literature has been conducted in relation to this topic, as a result, various concepts and theories have been discussed and utilised as a framework to understand the link between consumers perception of the wine industry, in the Western Cape, and the prioritization of water during extreme drought.

The purpose of this study is to explore the perceptions students, residing in Cape Town, have on the overall brand image of wineries (in the Western Cape) in times of drought. Based on the information gathered in the literature review, there are large gaps within the research, therefore this paper seeks to conduct further primary research in order to answer the research questions extensively. Through the available literature gathered, it is noted that various factors such as brand knowledge, brand positioning as well as environmental consciousness all play a role in defining brand image in the minds of consumers. Through this research, it will be determined whether water prioritisation will affect the brand image of wine farms using municipal water during drought conditions and to what effect this will have on the South African wine industry. Previous literature indicates a correlation between the two variables which will be addressed later in this paper.

SECTION 3:

RESEARCH METHODS

3.1. Introduction

This research explores the perceptions and attitudes student consumers have on the brand image of wineries within the Western Cape. A key focus will be placed on understanding consumers attitudes towards the prioritisation of municipal water to wine farms over other agricultural farms, should 'Day Zero' become a reality. Based on the nature of this research, the framework will make use of a qualitative design in order to gain insight and understand to the perceptions and attitudes of the students.

3.2. Qualitative Research

Qualitative methods were chosen to gather information on the attitudes and perceptions of student participants as these play a key role in determining the brand image for the chosen wineries. The Qualitative method chosen is an interview approach that will aid the relevant data collection of this study which will further be discussed.

3.3. Research Design

Qualitative data gathering methods such as collecting verbal data (Wyse, 2011) served this research project because of the interviews and surveys conducted. The qualitative research process was used because the study aims to focus on people's perceptions rather than on figures and statistics. Relevant results can be generated with a small sample group using the Qualitative method.

The theoretical paradigm used for this research study will be of an interpretivist nature. This research study focuses on understanding the brand image of wineries through the participant's perceptions. The nature of the interpretivist paradigm will be a guide in interpreting the research through a level of understanding and subjectivity by focusing on the perceived attitudes of students. (Neuman, 1997).

It is argued that the foundation of interpretive research determines that reality is understood through various social constructions such as language, consciousness and shared meanings (Myers (2009). The interpretive paradigm tradition focuses on understanding the world as it is from subjective experiences of individuals. It uses meaning oriented methodologies, such as interviewing or observation (Qualitative research design) to evaluate and understand these experiences. This research proposal assumes an interpretive approach as it aims to explain the subjective reasons and meanings that lie behind the social action of students in relation to water prioritisation in times of severe drought.

The research will make use of a methodological tradition that allows the researcher to study reality subjectively and gain an in depth understanding to the phenomenon based on interpretation and reflection. (Carson et al. 2001) Therefore, due to the nature of this study, an anti-positivist approach will be assumed when conducting the research.

In an anti-positivist approach, human behaviour and attitudes is explored in order to describe how consumers perceptions, towards wine farms, impact brand image. How consumers understand the impact of the drought and how they react to the wineries based on their knowledge of water prioritisation will be hermeneutically interpreted in order to understand these perceptions better. Hermeneutic tools such as qualitative research and non-directing interview techniques will be employed to further the research. (du Plooy-Cilliers et al. 2014).

Symbolic interactionists understand reality as symbolic and constructed. Such a shared meaning system informed this research. This shared meaning system then influences consumers as to how they identify with the concept of water prioritisation. (du Plooy-Cilliers et al.2014).

Furthermore, an application of a voluntarist approach was used as research was done on a broader spectrum of people and not just a specific stereotype. In this study, an idiographic approach was used to interpret the individual's own perception specific wineries and therefore it was important to determine specifically the participants own perception of brand image and water prioritisation. Thus ideographically, human behaviour and participant perceptions played a significant role in this research study (Maree et al. 2016).

RESEARCH PLAN

3.4. Population and Sampling

According to Explorable (2017), a population is a defined collection of individuals that are perceived to have a common, binding characteristic. The primary research sample population that this study focuses on is students studying at both private and public tertiary institutions in and around the Cape Town area (Western Cape). The population taken for sampling is limited to this geographical location due to time limitation, convenience and resource constraints. Only students aged between 18 and 24 have been considered in order to keep the data pool more refined.

It is important to ensure that the sample is diverse as possible within the boundaries of the defined population and therefore gender and race have not been considered. Interviews were used in order to gain rich informative data relating to the student's perceptions and attitudes. The interviews were qualitative in nature and thus the representative sample size was small, consisting of 7 students.

Prior to the interviews, a participant screening took place with the use of an online survey. The survey attempted to gain demographic data of participants as well as determine level of wine knowledge. The primary population was screened in order to determine whether they have a general knowledge of South African wines. It was vital that the population have a brand awareness within the category, as without brand awareness, it will be difficult to determine the perceived image of said brand on the population. Therefore, in order to achieve this, the sampling procedure took on a purposeful sampling strategy. Those who fit the requirements during the screening stage, were then approached for further questioning. It is noted that only the researcher is aware of the identities of participants, however, this information will be kept at full discretion.

Purposeful sampling is a technique used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources (Patton, 2002). This involves identifying and selecting individuals or groups of individuals that are knowledgeable about or experienced with a phenomenon of interest (Cresswell and Plano Clark, 2011). In addition to knowledge and experience, Bernard (2002) and Spradley (1979)

note the importance of availability and willingness to participate, and the ability to communicate experiences and opinions in an articulate, expressive, and reflective manner.

As it is difficult gain access to the entire population of student wine drinkers, the research selected the sample from an accessible population by recommendation of other participants. (Ritchie, & Lewis, 2003) Participants were able to share the screening survey with peers via various online channel, however, only those acceptable to the study were contacted for in-depth interviews. The sampling method used is known as snowball sampling, and makes use of referrals to increase the sample size. (R. Bezuidenhout, C. Davis, F. du Plooy-Cilliers) Ideally, an in-depth probability-based sample would have been more effective. However, real world factors such as cost, availability and time had to be taken into account (QMSS, 2016).

3.5. Data Collection Method

In order to collect rich content of opinions so as to give a full picture of the research study (Rouse 2016), an in-depth interview approach was followed. The research method used consisted of semi-structured interviews in order to understand the participants perceptions regarding the brand image of the wine industry, specifically relating to wineries that make use of municipal water. Open ended questions were used to allow a flow of conversation between the researcher and the participant. Encouraging probing questions to allow the conversation to move more organically and help build rapport with the interviewees.

This approach allows the researcher to answer relevant questions to student consumers, evaluate outcomes and make predictions about future probabilities and trends through the in-depth interviews that took place. As the interviews were semi-structured, ten main questions were put forward to keep the focus on the themes identified in the study in order to answer the main question and sub-questions. The interviews lasted 30 minutes in total and took place either at the interviewer's home in Newlands or over the phone. Few participants were unavailable and therefore were contacted over a WhatsApp video call. Data focused on the perceptions of the wine drinking consumer regarding the prioritisation of municipal water in 'Day Zero' conditions.

The data collection method used in this study consisted of interviews with open ended answers, allowing the reader to interpret and understand the qualitative side of the study better. Before commencing each interview, the researcher explained the purpose of the research and they were made aware that participation was voluntary and that disclosure of the information would be kept confidential. With participant approval, the researcher did audio recording during the interviews to ensure accurate transcription. The researcher also took handwritten notes during each interview, which enabled the researcher to track key points to return to later in the interview. The interviews were electronically recorded and transcribed on the same day as a hard copy document. The data analysis process took place through transcribing the sound files of the interviews into a hard copy document and then analysing the data

3.6. Data Analysis Method

In order to make sense of the data collected during the interviews, a thematic approach has been assumed. Data was collected from the interviews and was then transcribed. The thematic analysis aided in providing a description of the data set by examining the commonalities and differences of the themes explored. The researcher then attempted to find patterns and make sense of the insights discovered in the data in order to draw a conclusion. (R. Bezuidenhout, C. Davis, F. du Plooy-Cilliers).

Majority of the data that has been obtained in this study has been textual, gathered through the transcriptions from audio recordings that have been taken during the interview process with the student participants. The analysis period's main aim is to investigate the data collected in order to identify and interpret the different aspects of the data that would be sufficient in answering the primary and secondary questions outlined in this paper.

The unit of analysis for this research is specific words and phrases describing each participant's perceptions and attitude regarding the concept of water prioritisation in times of drought in relation to the wine brands they use. The common recurring denominators of specific words and phrases in the answers obtained from the respondents has been used as the main themes for the thematic analysis.

A thematic analysis is utilised to analyse the transcribed data collected throughout the interviews and surveys. This analysis type requires creating codes for relevant themes,

reviewing transcripts and analysing these themes. Certain sections have been identified that are relevant to the research questions and sub questions and have then be grouped into themes. After the data was analysed, the researcher then interpreted the data in order to gain an overall understanding of the findings which will ultimately lead to valuable recommendations and conclusions. (Braun & Clarke, 2006)

According to Psych (2017), there is a six-phase process in analysing data for the Thematic Approach. This method was chosen as it is relevant for this study when using in depth interviews as a method for gathering data. In this study, participants' views, behaviour and perceptions of water prioritisation will be analysed. Thematic analysis will allow for these factors to be critically analysed in order answer the objectives of the study.

Step 1: Familiarisation: The researcher must familiarise themselves with the data collected by reading the data over and over again in order to make sense of what is gathered.

Step 2: Coding: The process of creating labels identifying the main features in the data which aid in answering the questions of the study. Each feature will be coded and left for a later stage in the process.

Step 3: Themes: All coded data will be analysed in order to find a set of patterns or trends. These trends will help to identify the potential themes with in the data. Each trend will be allocated to its respective theme based on each participant in the study.

Step 4: Reviewing themes: Each theme for a participant is revised to then be combined, discarded or split when compared to other participants in the research. Each theme will be accepted or rejected if it correlates with the aim of the study or not.

Step 5: Defining themes: Each theme will be extensively a analysed in order to identify the purpose of theme and make sense of the data.

Step 6: Final Phase: Once the themes have been analysed, the final phase involves compiling all the data and contextualising the analysis.

SECTION 4:

FINDINGS

4.1 Research Findings

This section focuses on analysing primary research data qualitatively gathered in an attempt to answer the research question. Findings were based on student consumers perceptions and attitudes towards wineries that make use of municipal water under drought conditions. The research questions focused on understanding consumers attitudes towards the prioritisation of municipal water to wine farms over other agricultural farms, should 'Day Zero' become a reality. The aim of this research is to determine the impact student's perceptions have on the overall brand image of wine farms operating in the Western Cape.

Below is Table 1 which depicts information that has been gathered through the screening survey.

Participant	Age	Gender	Knowledge of SA wines (1-5)	Reside in the Western Cape	Studying at Tertiary Level	Knowledge of water prioritisation concept
P1	23	F	4	Y	Y	Y
P2	24	F	4	Y	Y	Y
P3	19	M	3	Y	Y	Y
P4	24	F	4	Y	Y	Y
P5	21	M	5	Y	Y	Y
P6	23	M	4	Y	Y	Y
P7	21	F	4	Y	Y	Y

Semi-structured in-depth interviews were conducted with seven students in order to gain a deeper insight into the perceptions and attitudes they have regarding the water crisis affecting the Western Cape. Issues such as water prioritisation towards wine farms over other agricultural industries were discussed in order to assess the attitude the participants have towards such concepts. The objective of the research questions was to determine the perceived brand image

of wineries based on students' knowledge of the prioritisation of municipal water, should the Western Cape reach 'Day Zero.' The findings gathered in the interviews were coded and placed into themes.

Theme 1: Environmental consciousness

A key concept for this research paper brought up in the literature review is 'environmental' consciousness, it was important to evaluate the level of consciousness that the participants had towards the environment in order to assess whether this would be a factor influencing the attitudes of students towards water prioritisation, during a severe drought. Environmental consciousness is a concept reflecting a person's readiness to do something to their own environment. According to Lin, and Huang, the process of developing environmental consciousness requires time and a change in attitude and purchasing habits, therefore, the relationship between environmental consciousness, attitude and purchase intention was evident in this research.

From the interviews, most of the participants believed that they are environmentally conscious to some extent, however they would not classify themselves as 'eco-warriors.' Many participants believed that they make some effort to being sustainable in their actions but not enough to really make a huge difference. All but one participant believed that they would actively seek out brands that make a considerable effort to being more environmentally conscious, even if it meant paying a premium price. In relation to the drought, this became an important factor for most participants as they believed it was vital for brands to attempt to reduce their water intake in an attempt to alleviate the pressure on the current water supply.

"I definitely would pay a premium price for a product that comes from a brand that is more water conscious than others. Sustainability is so much more important than paying a little bit extra for a product."

It is therefore clear that there is a positive relationship between environmental consciousness and purchase intention towards green brands. Students, when aware of brands who do more to be sustainable in their business operations, are likely to purchase from those brands over other less sustainable brands. In relation to the research objective, a focus has been placed on whether students would do the same for brands that use less water during a drought.

Specifically, wine farms that make use of alternative water supplies in an attempt to alleviate their usage of the limited municipal water supply. When asked, most participants felt that they would pay a premium price, however, they would expect those brands to deliver on quality for the purchase to be deemed worth the extra money. Communication also played a factor as some participants felt that many wine farms lack good communication with their consumers, so they would need to be informed on these efforts in order to switch brands.

“I would pay a premium price for a winery that was more water conscious, however, they would still need to produce good quality wine that appeals to my taste. Most wine brands don’t really communicate with their audiences, so they would need to stress those factors a lot to get me to change from my current favourite wine brands.”

According to Han and Yoon’s (2015) Model of Goal-directed Behaviour (*Figure 1*) consumers will buy a product or service to achieve their desired values. Therefore, consumers with a higher level of environmental consciousness will choose to purchase from green brands because it will bring satisfaction of personal value. When screening the participants, their level of environmental consciousness was not asked until the final interview stage. This was done so that the researcher could gain participants that were well-rounded in this regard. When asked whether they considered themselves environmentally conscious, most participants said they try to be, but nearly all agreed that they would choose a brand that was more environmentally conscious if given the chance. Some even stating that they would boycott brands that used excessive amounts of water during a drought.

“I support brands that are doing their best to be sustainable and conscious of others. Even if there wasn’t a drought, I think all brands should make an effort to do everything that they can to be more sustainable. Brands that do not make any effort should be boycotted, we need sustainability to be the standard.”

Theme 2: Water Restrictions

Cape Town is a water scarce region and is currently in the midst of a drought. In order to conserve the precious resource, the government called upon residents to continue working together to help change the way in which citizens use the available water.

The national Department of Water and Sanitation, together with the City of Cape Town and the Western Cape department of local government, environment and development planning, had held several meetings in an effort to manage and mitigate the effects of the drought on water availability for the province. The Restrictions Management Committee and the Joint Operations Centre had been set up to oversee drought management functions and interventions with the joint participation of local, provincial and national government. Through these efforts a Water Indaba, bringing together the government, the private and agricultural sectors, as well as academics and water experts, was convened to investigate solutions and actions necessary to avert 'Day Zero.'

Level 6B water restrictions were put in effect from the 1st of February 2018 in order to avoid 'Day Zero.' Those who did not comply with the water restrictions would be charged according to Level 6 tariffs (applicable during Level 6B restrictions) and would be fined or have water management devices installed onto their properties, in line with the City's Water By-law (2010) and Amendments (2018). At the time fines were expected to be in the region of R5 000 to R10 000 depending on the level of water used. (Pitt, 2018)

Since the restrictions were put in place, the Western Cape experienced a wet winter season and as a result, the provincial dam levels increased up to 70% in capacity. As a result, the City of Cape Town has made the move to relax current water restrictions from Level 6B to Level 5 from October 1st 2018. The new restrictions allow for an increase in the personal water use limit for Western Cape citizens from 50 litres per person per day to 70 litres per person per day. (Pitt, 2018)

When asked about the current water restrictions put in place by the municipality, there was some divide between participants about whether this was in fact fair. Some participants felt it was needed in order for the Western Cape to survive the drought, however, others felt that the restrictions placed responsibility on the community when it should in fact be placed on the

government.

“I definitely felt frustrated when the restrictions were first implemented because this drought could have been prevented. It shouldn’t have been swung around to make it the communities responsibility. “

All participants agreed that although the restrictions weren’t always easy, they were definitely successful in reducing their water intake and putting off ‘Day Zero.’ Thus, confirming that they were in fact necessary during drought conditions.

I think every educated person understands the need for water restrictions. It’s been hard, but we as sensible Capetonians have drastically reduced our water consumption to help avoid ‘Day Zero’. It has been absolutely necessary under the current situation.”

It was also noted that some participants believed that, should the restrictions be lowered, many residents within the Western Cape would reduce their water saving efforts thus putting the province in danger once again. One participant argued that the restrictions should be kept in place for residents within the city and surrounding areas but they should be lowered for agricultural purposes.

“The water restrictions are a necessary evil. I am of the opinion that should the City remove the current water restrictions completely or even lower them, people will revert to wasting water.”

“It’s something that we need to have in this country, clearly the government isn’t preparing well enough so we as citizens need to pull some of that weight. Now that the dam levels have increased, I don’t think we are ready to lower the restrictions just yet. Most people will take advantage of this and we’ll end up with another ‘Day Zero’ looming.”

“Coming from a family of farmers, I definitely think the restrictions should be lowered for agricultural purposes though. A lot of farmers have really struggled during the drought. And they need that extra water to rebuild their crops for the spring and summer months.”

Although recent rains and heavy snowfall have brought some relief, the impact of the severe drought in the Western Cape is far from over. In some areas, such as the Little Karoo, farmers are still battling the drought that started in early 2015. The agricultural sector still remains particularly vulnerable to water risks and a changing climate.

The drought has had a significant impact on agriculture, livelihoods and communities. Estimates are an economic loss of R5.9 billion in agriculture in the Western Cape alone, with a resultant 30 000 job losses and exports dropping 13-20%. This is due to reduced farming outputs and lack of available water resources for irrigation. Many hectares of productive fruit trees and vineyards have been removed ahead of the normal replanting schedule due to the lack of available water as well as to prevent disease and pests from spreading. (WWF, 2018)

Many farmers still fear the coming summer months despite the increase in rainfall this season, without a secure water future for South Africa, farmers still face increased losses and looming water tariffs. The impact of the increased water tariffs on farmers has added to the need to ensure optimal water efficiency on all farms within the Western Cape region.

Theme 3: Water Prioritisation

Prioritisation to food produce farmers:

There is an important role that water rights play in water allocations and their potential ripple effects. While water rights are not the only factor affecting water allocations, they are especially important during extreme water shortages. During drought conditions, there is a definite hierarchy based on the chronological order of needs which strongly affect drought allocations. On its face, water prioritisation is not an unfair basis for allocating water resources.

When asking students their opinion on water allocation during severe drought conditions, all participants felt it was a fundamental process in ensuring the safety and security of the water supply.

“It is fundamental, whenever there are limited resources within the country, there has to be allocation of that resource in terms of priority status in order to conserve it.”

“It’s a reality of fact that allocation of municipal must happen. Should ‘Day Zero’ be avoided certain industries must take preference.”

In relation to agriculture, water allocations are based on the yield of a specific river system, and each system differs (WWF, 2018). Some farmers get their water from an irrigation scheme (a shared distribution system) and some from on-farm water resources such as storage dams which are filled by mountain streams or by pumping water from the river. Many farmers also use boreholes to access groundwater resources. For all water users who get water from the Western Cape Water Supply System, they are metered and their abstraction is monitored either by the local municipality or by irrigation boards and water user associations (in the case of agricultural use). (WWF, 2018)

On average, the agriculture sector in the Western Cape has had to cut its water use by 60% since 2017. As a result, there has been a significant decline in overall output of produce as farmers prioritise crops with higher profit margins, such as fruit, and choose to abandon less profitable crops such as vegetables. Agriculture has had to compete with urban water use (industrial and residential) during the irrigation season (WWF, 2018). Even if the province continues to receive rainfall that is in line with average rainfall patterns, it could take between two to three years for dam levels to recover sufficiently to justify lifting current water restrictions towards agricultural sectors.

When participants were asked how they felt towards municipal water being allocated towards agricultural industries that produced food, the responses were varied. Some felt that it was absolutely necessary while others felt that food can always be imported and thus it is not a priority in greater context.

“Ultimately reducing water for agriculture could be prioritized as most food products could be sourced in different parts of the country. The need for water in homes and hospitals is greatest as well as the avoidance of a breakdown in sewerage. The risk of disease through lack of water must be given preference.”

“I feel that the City should prioritise municipal water allocation towards residential areas, including hospitals and not to agricultural areas. I understand the implication of this,

however I feel that priority needs to be given to people. We can always import food or wine and / or produce outside of the Western Cape.”

Within the context of the prioritisation of water, it was clear that all students felt it was a necessary feat in order to combat the current water crisis and avoid “Day Zero.” Some participants did not feel this way when asked if the allocation of this water went towards agricultural farmers who produce food as they believed it would be better utilized elsewhere, whereas some felt it was the utmost priority during a drought.

“I think once the drought becomes so bad that food security is an issue, the prioritisation of water to agricultural industries that produce food is very important. In a country like South Africa, not many people have the luxury of affording expensive food, and I think food that is imported falls in the category of expensive. So, we need to make sure that water is allocated to the most important industries in order to keep the economy afloat.”

Prioritisation to wine Farms:

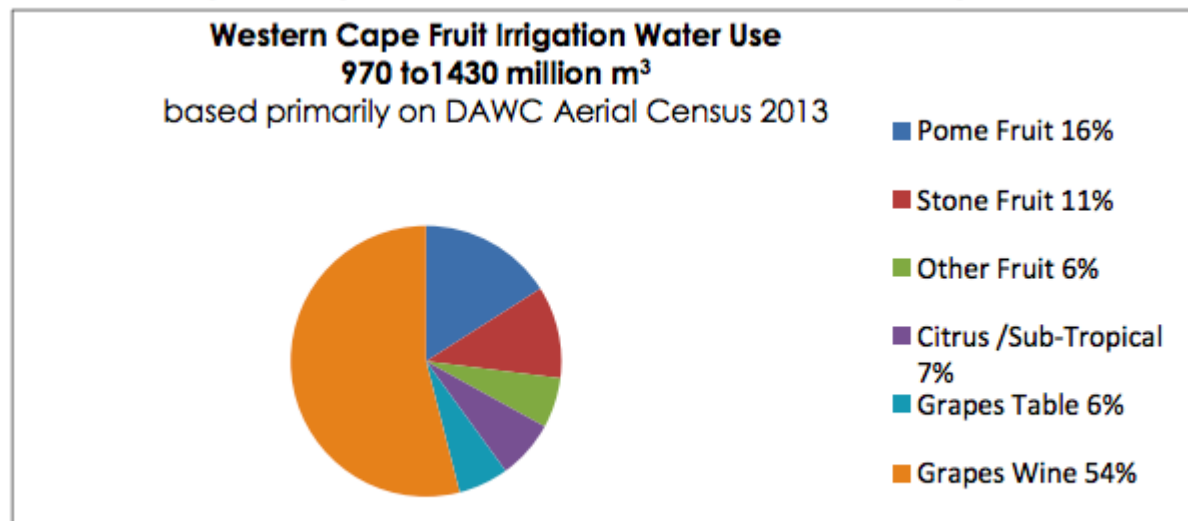
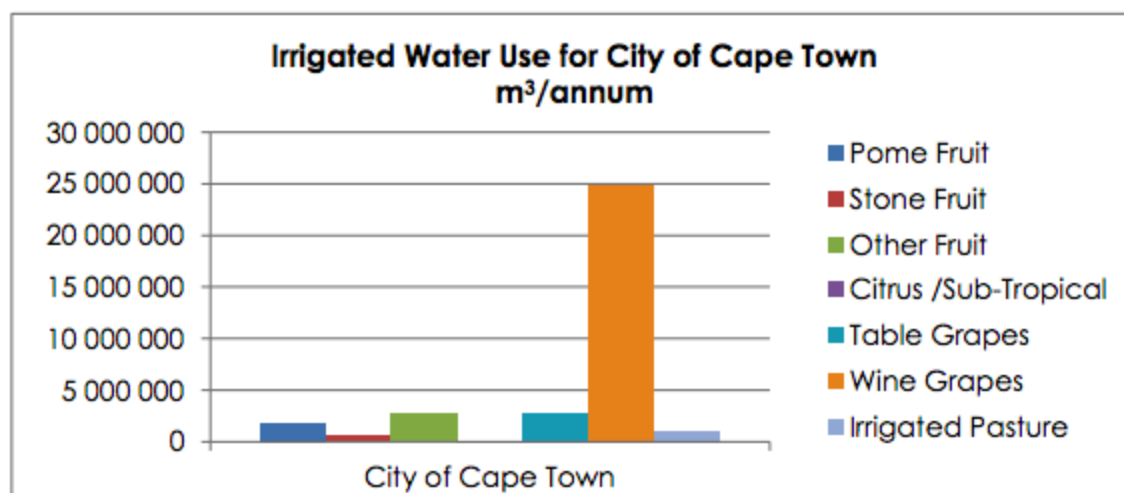


Figure 4.1: Western Cape Fruit Irrigation Water use (2013)

When considering the irrigation of fruit in the Western Cape, in 2013 wine grapes dominated the use of the water at 54% as seen in figure 4.1. It can also be seen that water use for wine grapes was dominant within the local municipality of the City of Cape Town in 2013.



Figure

4.2: Irrigated water use for the City of Cape Town Municipality.

As of 2017, decreased rainfall and snowpack within the region has led to a severe drought in the Western Cape. In order to prevent a water scarcity epidemic, agricultural industries have had to massively reduce their water intake for the growth and production of their produce. The

South African wine industry specifically, has reached a challenging stage in the harvest season due to the continuing drought and devastatingly low water supplies. Although some wine farms within the region have made great attempts at removing themselves from the municipality water grid, many still rely on the use of this water source for the production of their wines.

Municipality	Winery	Water Source	Water Use m ³ /a	Tons pressed	Litres of Wine produced	m ³ water / ℓ wine
Stellenbosch	1	borehole	1505	553	414750	
	2	borehole	4743	1464	1098000	
	3	borehole/Theewaterskloof	4959	1204	903000	
	4	fountain	780	1020	765000	
	5	Municipality	11700	2220	1665000	
	Average		4737.4	1292.2	969150	0.005
Drakenstein	1	borehole/Municipality	92010	20137	15102750	
	2	borehole	820	983	737250	
	Average		46415	10560	7920000	0.006
CCT	1	N/A	17210	9480	7110000	
	Average		17210	9480	7110000	0.002

Figure 5: Water use for wine cellars across three municipalities in the Western Cape.

In order to ease the pressure placed on the water supply, municipalities across the province will continue to place higher tariffs on water consumption to encourage agricultural businesses to save water. The drought has largely been affecting most of the agricultural sites of the Western Cape, as a result, all non-essential consumption is being assessed to determine its relative priority status. (Fridjhon, 2018) The problem occurs for winemakers within the region, as vine growers will face some concerns when it comes to prioritising grape farming in the overall context of agriculture.

When asking students their opinion on the prioritisation of municipal water to agricultural industries who use the water for the production of wine during severe drought conditions, many felt that it was not a commodity in times of drought.

“If the drought becomes such an issue that there is physically not enough water to sustain ourselves, then wine production is not as important as other agricultural businesses. Wine is such a huge part of the culture in the Western Cape and it does play a huge role in tourism, but it’s definitely not a priority under ‘Day Zero’ conditions.”

Some participants raised concerns about the downfall of the South African economy, should wine farms suffer due to lack of water resources. The Western Cape economy is about 13 percent of the national economy, so a 1 percent reduction in the Western Cape gross domestic product growth takes about 0.13 percent off growth of the total economy. The Western Cape wine industry alone contributes to roughly 4.6% of the provincial GDP. Currently, wine production is already at a loss of 20% within Cape Town. (2016 SAWIS)

As a result, few participants felt that the allocation of water to the wine industry is vital to the growth of the country and if not maintained, will result in a loss of jobs, tourism and exports.

“Especially in Cape Town, where grapes and wine tourism plays such a huge role in the economy, not allocating water to this area would greatly affect tourism in Cape Town.”

“I think it is important in reference to the wine industry making a considerable contribution to the South African Economy. South Africa is known for its wine. There is international interest and business surrounding the wine industry so keeping that alive should be a priority for a country like South Africa who relies so heavily on foreign investment.”

Participants were further asked if they would still support the prioritisation of water to wineries over other agricultural industries. Most participants felt slightly perplexed by this question and took careful consideration when answering it. Some still felt that it was vital to the upliftment of the economy and felt that, should the wine industry suffer, the rand would too. Other participants felt very strongly against the prioritisation of water to wineries over other more essential agricultural industries, stating that wine is a commodity in times of drought.

“The production of wine is not a top priority in times of severe drought. Wine is just not a commodity that is essential in the times of extreme water crisis.”

“Wine is a luxury. So, in that sense, the prioritisation should be given to producers who are making necessary goods rather than luxury goods.”

Theme 4: Brand Image

There are many aspects that may influence the consumers' perceptions of the brand and customers may value specific types of brand image (Sonnier & Ainslie, 2011). It is important for the wineries operating in the Western Cape to bear in mind that their brand's worth is intimately tied to their consumers reaction to their business operations, products and services.

Brand image is the result of brand identity. In order for a brand to be successful, it first needs to recognise any issues that are affecting brand perception and image. With regards to this research, it is vital to understand the concept of brand identity and image in order to distinguish the perceived image of a winery utilising municipal water during a drought.

Participants were asked whether or not they would feel more negatively or positively towards a brand that made use of municipal water for wine production over a brand that made use of alternative methods. Alternative methods include private dams, borehole water, mountain water catchment systems, etc. Once again there was a large divide between the participants responses. Four respondents felt that they would feel more negatively towards a brand that utilised this water as they felt that there were other more essential uses for municipal water during a severe drought.

“I would definitely have a negative view of a brand that makes use of municipal water just because if there are alternative methods and other brands have changed their business operations to accommodate for the devastating drought by implementing these changes, then so should the brands that use municipal water.”

When informed that some wine farms do not have access to personal dams and viable underground water, participants who felt more negatively towards these brands were once again asked if they felt this way. Of the four participants who felt negatively, not one participant changed their mind in light of this information.

“Even though I understand a lot of farms don’t have access to personal dams and other methods of water, I still think it is important for these industries to try reduce their usage of this source of water. Municipal water is best allocated elsewhere.”

Therefore 57% of participants felt that they would have a negative view of a brand that did not utilise alternative methods of water procurement during a drought. One of the participants happen to come from a family who owns a small wine farm in the Western Cape. An interesting observation he made is about the science of wine production and how by altering the water source, can result is a change in the taste and quality of a wine.

“The wine making process is such a chemical process, so changing to water source would definitely affect the quality and taste of the wine. Any wine producer should be wary of making such a drastic shift to their product. If you compromise on that in times of drought, you are ultimately compromising your product and brand reputation.”

Theme 5: Consumer Action

In an attempt to be more environmentally conscious, participants were asked whether or not they would be willing to pay a premium price for a winery that was more water conscious than other wineries (during a drought). Of the seven participants interviewed, five stated that they would be willing to pay a premium price for a brand that was more water conscious than other brands. Of those five participants who stated they would, two went as far to say that they would consider boycotting brands that did not do their part during a drought.

“I have always supported brands that are more environmentally conscious than others. As long as the product was of high quality, I would be willing to pay a premium price for it”.

“As for any company or wine farm, sustainable and environmentally friendly procedure cost more. I would be prepared to pay a premium because I think it’s everyone’s responsibility to be sustainable.”

4.2. Anticipated Contribution

The limited availability of drought related studies on water prioritisation in the Western Cape means that this study can contribute additional information on drought management and the potential effects water prioritisation has on agricultural businesses. This research could help to improve the current knowledge base and alleviate some of the negative impacts of water prioritisation on agricultural industries throughout the Western Cape during potential drought conditions.

Brand image is a vital aspect of building a meaningful brand, this research contributes to the knowledge required for agricultural industries (specifically wine producers) to understand the meaning of a strong brand and make informative decisions which will affect wine farms as a whole. In doing so, contributing to the development of the South African wine industry. This research can be further adapted to other water consuming businesses and be used to mitigate the negative effects of drought on brand image.

4.3. Credibility & Trustworthiness

This particular study is a qualitative study, so validity and reliability do not necessarily take part in justifying the value of research findings as validity and reliability are considered in a quantitative study (Shenton, 2004). Reliability indicates a measure consistency, in order for measures to be reliable, measures used must produce consistent results if used during other occasions and by other researchers in similar ways. Those interpreting the results must be clear as to how conclusions were formed from the data collected (Saunders & Lewis 2012).

For the research to be valid, the data collection method must truthfully and accurately measure what it states to be measuring (Zikmund et al., 2012). The researcher ensures trustworthiness throughout the research design process, data collection and analysis to confirm validity of the results. This was done by ensuring that the respondents selected represented the population of students in the Western Cape and that bias was limited during the unstructured and semi structured interviews conducted.

Credibility is defined as the confidence that can be placed in the truth of the research findings (Holloway & Wheeler, 2002; Macnee & McCabe, 2008). Credibility establishes whether or not the research findings represent plausible information drawn from the participants' original data and is a correct interpretation of the participants' original views (Graneheim & Lundman, 2004; Lincoln & Guba, 1985). In order for this research to remain credible, the researcher will establish rigour of the inquiry by adopting credibility strategies such as triangulation, member checking, peer examination, credible interview techniques as well as establishing authority of researcher. The research findings used open-ended interview questions in order for research participants to provide detailed responses and thus giving credible information. Interviews can be time-consuming and can also cause some level of discomfort in participants. To ensure reduced risk of such limitations, the researcher explained the expectations of the interview and research objectives to each participant; obtained their consent before commencing the interview as well as conducting the interview in a comfortable environment. This ensured the transferability, credibility, and dependability of the research.

SECTION 5:

CONCLUSIONS

5.1. Research conclusions:

An investigation was conducted in order to determine how consumers react to the concept of water prioritisation, should 'Day Zero' come into effect. By looking at the allocation and consumption of municipal water towards wine farms within the Western Cape, the research set out to understand the impact these perceptions will have on the overall wine industry within South Africa.

Water prioritisation will become a detrimental issue to all South Africans, should 'Day Zero' come into effect. This is a problem that will affect all industries not only the South African wine industry. The problem was to determine the effects of this issue on the South African economy, by focusing specifically on the wine industry and how consumer awareness and brand image plays a role in the success or failure of these businesses.

This research attempted to determine how consumers react to the concept of water prioritisation in times of severe drought by looking at the consumption of municipal water towards wine farms within the Western Cape. There is a steady trend toward environmental consciousness for South African citizens, however, municipal water allocation toward non-commodity agricultural industries is a factor that has not yet been measured when assessing brand image. This research sought to understand whether or not consumers will develop negative perceptions of the winery as a brand. Should consumers look unfavourably on certain wine producers, their decision to purchase their products may change and thus ultimately affect the profitability of these businesses.

The following research questions were posed:

1. Should the Western Cape reach 'Day Zero', what is the perceived brand image of the wine industry based on students' knowledge of the prioritisation of municipal water to wine farms?

2. What are students attitudes towards the prioritisation of municipal water to wine farms over other agricultural industries?
3. What are the implications of negative brand perceptions on the overall context of wine farming in South African agriculture?

H1: The effect of water prioritisation in times of severe drought is expected to alter the perceived brand image of the wine industry within the Western Cape. Based on factors such as commodity, consumers will face ethical considerations when arguing for the rights of water to wine farms over other, more essential agricultural sectors.

It was clear from the observations made in the interview process that all participants felt that they were environmentally conscious to some extent. This factor led to influence most responses the students gave, as the driving force behind them was based on a sustainable driven future. Consumers held businesses accountable for their practices and demanded that they look into alternative methods to help relieve pressures on the environment.

When asked about the concept of water allocation under extreme drought conditions, the common consumer viewpoint was that it was a fundamental necessity in order to conserve a limited water supply. Consumers felt that in order to prevent a water scarcity issue within South Africa, there would need to be a strategic water plan drawn up by government officials to guide the process of water prioritisation and make sure that the most influential industries within the Western Cape are allocated water to sustain growth for the economy.

An assessment of which industries were deemed a priority in times of drought was given to the participants. In relation to the Western Cape wine industry, the general consensus among consumers was that the wine industry is not a priority during a 'Day Zero' water blackout. Consumers felt that the allocation of municipal water as a precious and limited resource is best allocated to other more essential industries such as hospitals and sewage removal. Wine production was deemed a luxury during a drought among consumers and not supported as a priority industry.

The general viewpoint of consumers was that wine farms who utilise municipal water during a drought were not doing all that they can in order to conserve this limited water resource. Consumers felt more negatively towards brands that make use of municipal water for the production of wine over other brands that utilise their own private water sources during extreme

drought conditions. This negative perception ultimately impacted the brand image of said wineries as consumers felt that were less environmentally sustainable over their competitors. A negative brand image can destroy a brands equity over time. Brand image is seen as consumer perceptions of brands based on their experiences with that brand. According to the participants of this study, brands who do not make the necessary changes to their business operations are considered lazy and unsustainable. Therefore, it is clear that the hypothesis for this research was in fact correct. Consumers are likely to purchase from brands that they feel are making a commendable effort to reduce their use of municipal water, some going as far as boycotting brands that do not do their part. The effect of this perception can result in a loss of brand equity for these wineries as well as a loss in trust, thus ultimately resulting in fewer sales and a negative brand association.

The South African wine industry is the ninth largest producer of wine in the world and contributes 4% to global production. South Africa exports 440 million litres of wine annually and sells 400 million litres locally. (Fridjhon, 2018) Wine is a key driver of international and local tourism, which in turn makes an important contribution to the GDP of the Western Cape. Each and every wine farm plays a role in building the economy; should consumers avoid certain wine farms, this may in turn affect the wine industry in greater context. Loss of jobs are evident as well as a decline in sales, resulting in a lower contribution to the GDP. In general, a GDP decline impacts sentiments (consumer, business & investor) negatively. As a result of a loss to the Western Cape wine industry, South Africa could see a fall in stock market indices and the exchange rate. Additionally, as GDP falls, the unemployment rate is expected to fall, and prices to decline.

5.2. Ethical Consideration

Various ethical considerations are required to be analysed before conducting a research study. There are various ethical issues which will affect the participants of the research (Louw, 2014).

Participation and Consent:

In order for the research to abide with ethical practices, all those who participate in interviews were required to sign a consent form stating that they are aware of the focus of the study and understand their right to leave at any point during the research gathering process. This document disclosed that their identities remained anonymous in the final research report, and that the information they provided was used in the findings of the research, however without attachment to their identities. At no point during the interview process was a participant required to share information they did not feel comfortable sharing. All participants were made to feel comfortable, and held the right to refuse certain questions. (R. Bezuidenhout, C. Davis, F. du Plooy- Cilliers)

Falsifying of information:

This is the deliberate manipulation and fabrication of data to suit a certain situation and this is unethical (Louw, 2014). The researcher did not create any information which suited the research topic, such as creating false information.

Avoiding Harm to Participants:

The researcher ensured that participation in the research study did not cause harm to any of the participants, be it psychological or emotional harm (Schuklenk, 2004). Whilst conducting the study, none of the participants were subjected to any emotional or physical harm by the researcher. The comfort of participants was vital throughout the data collection period. Interviews were carried within environments chosen as convenient by the participant. As suggested by Kaiser (2009) this can be ensured by keeping all information confidential and avoiding accidental disclosure. The research was open and honest about the nature of the study and informed participants that the study was undertaken as a requirement for the completion of an Honours degree. Finally, the participants were provided with information on the outcome of

the research but were made aware of where to access the research report.

In conclusion, the researcher considered and acted upon such ethical issues in order to ensure and maintain the ethics of the research study. These ethical concerns were addressed by the researcher to ensure ethical requirements of the study were sufficiently met.

5.3. Limitations

Although this study provides several new insights, it is not without its limitations. This research study limited its geographical area to only include the Western Cape, thus limiting this research to a provincial level. The dataset solely included students between the ages of 18 and 24, and therefore limited the study to a specific group of individuals. These limitations excluded the larger Western Cape population and therefore does not provide an accurate depiction of the entire population's perceptions on the research topic.

Interviews and surveys predominantly focused on the wine drinking consumers' perceptions and attitudes regarding the concept of water prioritisation during a drought and its effect on brand image. The main criteria to this research study is to approach the most reliable, trustworthy and knowledgeable candidates to participate in this study. For this reason, specific wine drinking consumers were selected to ensure the most reliable information gathered. By approaching student participants living in the Cape Town area, the research was limited to the responses given as students do not represent the entire public South African opinion. There was also the possibility that respondents gave socially desired responses that they deemed desirable but not necessarily their genuine views on the research topic.

Water prioritization and drought affect many agricultural industries in the country. This research paper focuses predominantly on the Western Cape Wine Industry and therefore limits the study to be industry specific.

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