

The impact on brand equity of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions: a triangulation study based on Western Cape millennial consumers.

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I hereby declare that the Research Report submitted for the BA. Hons. Strategic Brand Communication 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

Brand transparency plays an important role in building brand equity and is continuing to play an equally important part in the development of trust between the brand and its consumer, and is highly considered by millennials when deciding what product to buy. The persisting Western Cape drought has placed immense pressure on crop-based food brands to find alternative water-saving farming methods grow maize meal under harsh weather conditions. Data was gathered through semi-structured surveys with Western Cape millennial consumers aged 22-37, in order to draw a conclusion about their willingness to support a crop-based food brand that isn't being transparent. Findings show that the purchase behaviour of Western Cape Millennials are driven by how transparent crop-based food brands are about their production methods. Transparency is important to Western Cape millennial consumers and a lack of which can alter their purchase behaviour. By ensuring transparency in all that it does, a brand is able to establish trust with its consumers and thereby build meaningful relationships with them. Maize meal is one of the staple foods in South Africa and with the rise of genetically modified (GM) crop production methods as a result of the persisting drought and the negative perceptions held by Western Cape Millennial Consumers, it has become more important now than ever that a brand makes a point to inform their consumers of any possible changes that may or have occurred in the production of their maize meal. The results of the proposed research can help crop-based brands to understand the increasingly important role that brand transparency plays in the development of strong brand equity in context of the persistent drought conditions.

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Chapter 1: An Introduction

Introduction & Background of the Study

With the increase in temperatures and less reliable rainfall, there will be a greater demand for farmers to irrigate, especially in the drier areas of the country, putting greater pressure on the country's already sparse water resources.

This places greater pressure on the need for water-saving and efficient water-use farming methods (Blignaut et al., 2009). The transparency of crop production methods used by the organisations and their ability to cement this transparency as part of a company's brand identity is key to ensuring a healthy brand (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010). With 52% of consumers being millennials, that consider the environmental impact by brands for purchasing decisions and a shift in production methods as a result of the water crisis, brands will now have to manage a change in brand identity and communication in order to maintain a strong brand association (Patel, 2017). The absence of transparency, however can have a damaging effect to brand equity (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010).

South Africa is the only country in the world that has enabled its staple foods to be genetically modified (GM) (Jaffer, 2018). While forty-four percent of the country's maize is grown in the Free State, the mielie plants that can be seen in the fields are very different, even though they may appear the same with a golden and green blanket-like appearance (Jaffer, 2018). Since 1998, the country's maize has been modified by a process called genetic modification (GM). In order to effectively deal with a topic of student hunger, this led the UFS to gain an understanding of what the students are consuming. It was revealed that maize products contain a substantial amount of GM, that studies reveal is dangerous to human health. Mariam Mayet, Director of the African Centre for Biosafety states that a large number of South Africans are consuming GM maize without their knowledge and consent and also have little choice or alternative even if the products are correctly labelled (Jaffer, 2018). Mayet expresses that while South Africa is not the only country to allow GM technology. European countries, along with the USA, Argentina and India have also allowed for GM technology. However what sets South Africa apart is that it

has allowed the country's staple foods to be genetically modified. With 86% of the 2013 season maize crop being genetically modified, the adoption of GM maize crops has been rapidly implemented by commercial maize farmers (Jaffer, 2018).

Milled maize products such as Ace and White Star belonging to Tiger Brands and Pioneer Foods contribute towards 73% of South Africa's white maize crop. Such a control in the market is highly profitable for the farmers (Jaffer, 2018). Since the implement of GM crops in South Africa, The Department of Trade and Industry has released a consumer protection act placing thresholds in GMO labelling. The act stipulates that where goods, components or ingredients contain less than 1% GMO material, the producer or importer can then claim that the good does not contain GMO (Biosafety.org.za, 2018). If the good contains less than 5%, it also may be labelled so. However, the the good contains above 5%, then it must, in accordance to the consumer protection act be labelled as containing GMO (Biosafety.org.za, 2018).

Rationale & Significance of the Study

As previously mentioned, with the persisting drought conditions, there is immense pressure placed on the need for water-saving and efficient water-wise farming methods. The transparency of crop production methods used by the organisations and their ability to cement this transparency as part of a company's brand identity is key to ensuring a healthy brand (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010). Therefore in order to maintain a strong brand equity and retain the loyalty of their consumers, it is important to be transparent about the status of genetic modification methods that might be involved in the production of their maize meal products.

Problem Statement

As a result of the change in weather conditions, there is no choice but to deploy Genetic crop modification methods. With production methods being inherently connected to an organization's brand (Magnusson, M.2004), it's imperative that when the production method of the product changes so does the nature of the brand change. In order to ensure brand equity, it is important that a brand's identity adapt to these changes and a strong brand image be maintained. Transparency is key to maintaining a healthy brand identity

and a lack of such might damage it's brand image (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010). In order for crop-based brands to continue to be successful and maintain brand equity it is therefore imperative that the brand finds ways to portray their product in a way that the consumers still want to associate with them and ultimately maintain a level where it's brand identity and image align (Keller, K.L. 2001). A study such as this could assist in identifying the impact on brand equity, from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions.

Brown (2018) highlights the importance of similar studies and states while it is important that a product or service lives up to the expectations of it's consumer, the quality of the brand's product or service however, isn't the single contributing factor when determining the level of success that a brand will achieve. It is also about how consumers perceive the brand. This universal perception of a brand's product or services holds a significant source of value for the company. This value being the brand's equity, that can be deconstructed into three major parts such as consumer perception, the effect of this perception on the brand and the value of this effect. Such value can be determined by both tangible and intangible parts where tangible factors refer to quantitative values such as sales numbers and intangible referring to qualitative values such as consumer awareness of the brand (Brown, 2018). Brown highlights that the measurement of brand equity whereby the brand is forced to consider metrics surrounding knowledge and preference with knowledge relating to the consumer awareness of the brand through top-of-mind recognition and recall and preference relating to how these consumers perceive the brand in relation to competitors is key in identify issues relating to brand equity (Brown, 2018). By identifying issues relating the brand equity, a brand is able to take on the relevant steps in building brand equity and measuring progress and increase its sales and prestige - both which are needed to become successful and a leader within the market. The brand is able to increase the number of customers willing to recommend the brand and maintain brand loyalty particularly with reference to millennial consumers who want brands that are transparent in their production methods making it all the more important for the producers of the brand to be transparent in their production methods (Brown, 2018).

Purpose Statement

The purpose is thus to investigate to what extent a lack of transparency of production methods utilised by crop based food brands in light of the persisting drought conditions can have in impacting the equity of the brand. A greater understanding of this will be achieved by asking the above mentioned research questions and sub-questions.

Research Questions

This study poses one primary and three sub-questions. The primary research question asks:

What is the impact on brand equity, from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions?

The following three sub-questions are posed:

1. What is the current Western Cape millennial consumer perception towards genetic crop modification?
2. To what extent are Western Cape millennial consumers willing to support a brand who is not being transparent about their genetic modification methods during the persisting drought conditions?
3. How do consumers at differing retail outlets demonstrate variations in support for a lack of brand awareness?

Research Objectives

It is supposed that the following study will reveal that there is a negative impact on brand equity from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of the persisting drought conditions. However, in order to discern this, the willingness to support a brand who is not being transparent about their genetic modification methods during the persisting drought conditions was investigated. The primary objective of this study is therefore to ascertain whether or not these assumptions hold true in reality.

Conceptualisation

1. **Brand Equity** (the commercial value that derives from consumer perception of the brand name of a particular product or service (Keller, 2001).)
2. **Brand Identity** (how a brand presents itself and wants to be perceived in the mind of it's consumers (David A. Aaker, 1992).)
3. **Brand Image** (the perception of a brand held by the consumer, can be positive or negative (Keller, K.L. 2001).)
4. **Brand Impact** (refers to a set change of organisational effects or perception of the consumer, the purposes of this document is a reference to the change in these ideas.)
5. **Crop-based food** (rice, wheat, maize, sorghum, ragi, legumes, fruits, vegetables and nuts.)
6. **Drought** (a prolonged period of abnormally low rainfall, leading to a shortage of water (Oxford Dictionaries | English, 2018).)
7. **Genetic Modification** (GMO) (the process of artificially altering genetic material to produce a desired characteristic (Gov.scot, 2018).)
8. **Healthy Brand** (a brand that considers the notion of identity, value, sustainability and communication authenticity as well as being able to move away from being solely profit-focused and business driven (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010).)
9. **Millennial Consumer** (individuals born between 1982 and 2004 (Millennial Marketing, 2018).)

Research Methodology

A qualitative approach is enforced to explore the above research question, as the question aims to uncover insights about and variance in millennial consumers' behaviour in relation to a crop based food brand and is consequently exploratory by nature. The sample population includes Western Cape consumers aged 22-37, and includes millennials who are aware of or have purchased maize meal. The research methodology carried out includes semi- structured surveys with participants. These were conducted to gather

detailed data. Subsequent to this, the data was analysed inductively to gain a better understanding as to how Western Cape millennial consumers perceive crop based food brands that deploy genetic modification methods during the persisting drought conditions and their willingness to support such a brand who is not being transparent about their genetic modification methods.

Outline of Chapter Contents

The following research report is comprised of six chapters, with each outlining a single aspect of the research process:

Chapter One is the opening segment that sets the scene for the research report by introducing the topic and explaining the background and importance of the study. This chapter also introduces the research method to be followed along with objectives and hypothesized results.

Chapter Two brings in the Literature Review and discusses key literature and findings in prior research conducted in this field so that an overall view of the topic can be understood. Relationships between the literature and this study as well as significant concepts and themes were recorded.

Chapter Three introduces key theoretical and academic models pertaining to this study.

Chapter Four describes the research design and process that were undertaken to produce data and conclusions.

Chapter Five surfaces the key findings and discussion.

Chapter Six revisits the research questions by discussing the themes that arose from analysis of the content of the surveys. These themes include

- The millennial consumer;
- Consumer perception;
- Brand Awareness;
- Perceived Quality;
- Transparency and competitiveness; and
- Brand Loyalty.

This chapter shares the conclusions of the study, success of the research and suggests recommendations for further research in this field. Ethical implications and Limitations pertaining to the study are also addressed.

Chapter 2: Literature Review

To measure the impact on brand equity of a crop-based food brand that deploys genetic modification methods as a result of the persistent drought conditions, it is important to establish any prior research pertaining to this field. This review will be divided into the themes: Rise of GM crops, South African GM maize brands, Consumer perceptions around GM, Brand Equity, Importance of Brand transparency and Customer Loyalty.

The key literature discusses the current Western Cape drought and the rising need for alternative water saving crop farming methods such as the introduction of genetically modified crops. With the integration of a report showcasing the GM percentage of the main crop-based food brands that exist in the Western Cape, the key literature goes on to discuss current consumer perceptions surrounding genetic crop modification.

Rise of GM crops

In a report by the African Centre for Biodiversity, namely; *Transitioning out of GM maize: Towards nutrition security, climate adaptation, agro-ecology and social justice*, trends regarding genetically modified maize in context of a drought is discussed, together with an unsustainability of maize crops existing as a consequence to a transition into a hotter and drier future. The article makes reference to climate change, specifically the El Niño phenomenon whereby South Africa has recently seen the worst drought in its recorded history, with 2015 being the lowest national annual rainfall recorded in South Africa since 1904 and discusses the increase in the production of genetically modified maize products that can survive in harsher and drier weather conditions.

The article goes on to discuss that large parts on the continent are expected to get hotter and drier and this shift in weather will impact crop suitability, as climatic variations can alter crop productivity. The article states that much of the Highveld region will lose its suitability to produce maize, and potentially threaten the stability of South African staple food supply which may cause for a real concern for South Africa, as well for neighbouring states that depend on South African maize imports. The article highlights concern regarding limited possibility to expand on irrigation in the sustainment of crops and suggests this is due to a limitation in the supply of freshwater that is reducing over time with less and less rainfall

expected. The article explains that as a result of the decrease in rainfall, there is an increase in the need for water-saving and efficient water-use farming techniques that are required to sustain the growth of crops however such techniques will drive production costs even further making maize more expensive to grow and purchase. The article describes how genetic modification begins to look more attractive to farmers and consumers in context of price increase as a result of the western cape drought conditions and a need to cut down on expenditure (Lewis, 2016). This article indicates how such an environment change might make consumers more willing to be open to genetic crop modification methods.

South African GM maize brands

In an article by Zubeida Jaffer, Jaffer refers to a study conducted by the African centre for Biosafety where seven of South Africa's most popular maize meal brands were tested for levels of GM within their products. It was discovered that maize meal products exclusive to the brands Woolworths, Pioneer Foods and Tiger Brands contained an average GM content of more than 47%. It was revealed that Pioneer Food's white star maize meal contained a GM content of 47.7%, Woolworth's super maize meal contained a GMO content of 79.78% and Tiger Brand's Ace maize meal contained a GM content of 77.93% (Jaffer, 2018). In a quote by Mariam Myet, Director of African Centre for Biosafety, Myet stated that the majority of South African's without their knowledge are eating GM maize without their knowledge (Jaffer, 2018).

In another article by Jaffer, namely: GM: Mixed Messages from Woolworths, Jaffer discusses a case of controversy regarding Woolworth's violation of their policy whereby in 1999 Woolworths publicly committed to eliminate genetically modified ingredients wherever possible by working hand-in-hand with suppliers to do so. Jaffer inserts a quote from Woolworth's Managing Director for Foods, Zyda Ryland that states. "Many of our customers have told us that they would prefer not to buy products that may contain ingredients from GM crop sources, and we respect their wishes." Jaffer makes reference to a quote by Haidee Swanby, researcher at the African Centre for Biosafety where Swanby expresses a disappointment with Woolworth's misuse of the "May be Genetically Modified" label, where she states that such label stood in clear violation of their stated policy to label

products containing GM ingredients where these product could not be removed (Jaffer, 2018).

Consumer perceptions around GM

In an article written by Maria Magnusson namely, *Consumer Perception of Organic and Genetically Modified Foods*, consumer perception of food brands that deploy genetic modification methods plays a role in determining the impact that their perception may have on their purchasing behavior. Magnusson states that European consumers are found to have a negative attitude towards genetic modification and that this low acceptance of genetic modification specifically in agriculture and food production, has been suggested to vary on the fact that the majority of modifications so far have exclusively benefitted the producers. Magnusson states that if genetically modified foods were to provide tangible benefits for consumers, their acceptance would increase (Magnusson, M.2004). In light of the persisting Western Cape drought conditions, it can therefore be said that a negative perception towards genetic crop modification combined with a lack of transparency about GM methods of production could potentially have a detrimental effect on the purchasing behaviour of said consumers. In this document the researcher will be identifying whether these assumptions hold true.

Chapter 3 Key Theoretical and Academic Models

The theoretical framework integrates and discusses the relationship between Brand Equity, the importance of transparency and customer loyalty to demonstrate the significant role that brand transparency plays in the preservation of customer loyalty and the importance of such in order to maintain a strong brand equity in the midst of the persisting Western Cape drought whereby the need to seek alternative water saving farming methods is increasing.

Brand Equity

The Aaker Model, created by David A. Aaker is a marketing model that views brand equity as a mixture of brand awareness, brand loyalty and brand associations, which combine to give the value provided by a product or service. Aaker defines brand equity as a set a brand assets and liabilities that are linked to the brand, including its brand name and

symbols that may add or subtract value from a product or service (David A. Aaker, 1992). When a brand has strong brand equity, it becomes of value because the brand can begin to ask premium prices, which will drive revenue.

In order to understand brand equity, it is important to first define and identify the relationship between brand identity and brand image. According to Aaker, a brand identity can be defined as “a unique set of brand associations that the brand strategist aspires to create or maintain”. These associations reflect what the brand stands for and offers a promise to customers from the organization members . Aaker emphasises that brand identity should assist to establish a relationship between the brand and the customer by creating a value proposition involving functional, emotional or self expressive benefits. The below diagram illustrates David Aaker’s brand identity planning model which demonstrates the importance of communicating an authentic brand identity and value proposition to the consumer in building the brand (Source: Aaker, A. & Joachimsthaler, E. 2000).

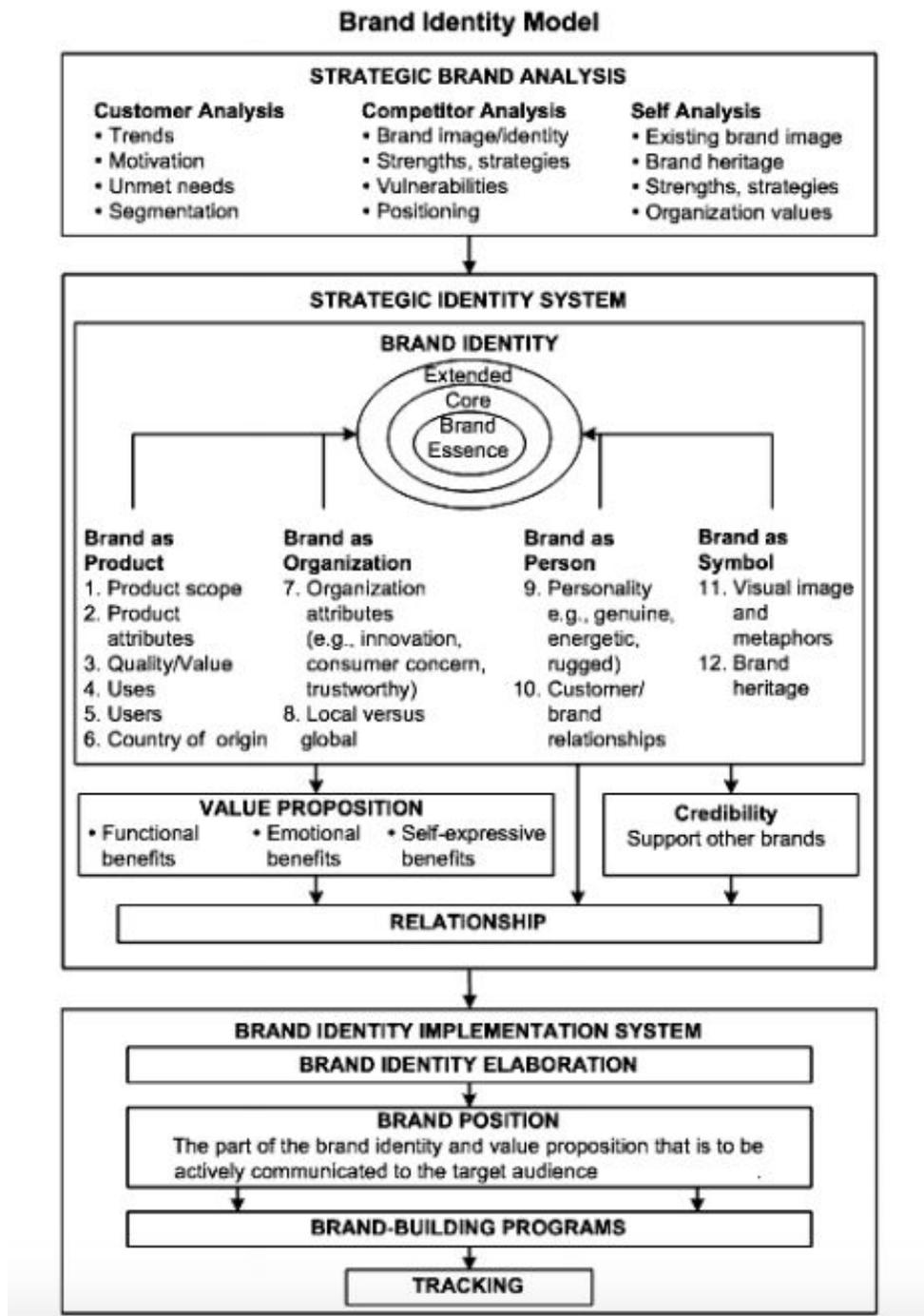


Figure 1: David Aaker's brand identity planning model

Importance of Brand Transparency

In an article written by Gordon Cook, Kira Erwin, Patrick Carmody and Carla Enslin, namely *How healthy is your brand?*, the concept of brand health as well as a set of indicators which can assess brand health and suggest a state of well-being is discussed. In light of food product brands that deploy genetic modification methods the article suggest

that transparency of production methods is key to ensuring a healthy brand. With 52% of organic consumers being millennials (Patel, 2017) and the shift in production methods as a result of the water crisis according to a report by the African Centre for biodiversity, brands will now have to manage a change in brand identity and communication in order to maintain a strong brand association. The absence of such, however can have a damaging effect to brand equity (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010).

In the article, a healthy brand is deconstructed into seven criteria and reads as follows. A healthy brand is a brand that:

1. Offers a “particular and meaningful purpose”;
2. Is transparent and lives its purpose in all that it does;
3. Suggests a “distinctive identity”;
4. Is “an engaging, authentic and coherent communicator”;
5. Adds “value to the lives of people”;
6. Builds sustainable relationships by never taking more than it gives”; and
7. Views profit as a consequence of health, rather than a driver of business (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010).

With reference to genetic crop modification methods deployed by food product brands, this study will place focus on the first criteria of a healthy brand whereas a brand is transparent and lives in its purpose in all that it does. This study will also refer to the importance of a distinctive identity in the establishment of a healthy brand as well as the importance of having a distinctive identity in context of ensuring a strong brand equity.

Customer Loyalty

The CBBE model, created by Kevin L. Keller is a marketing pyramid model which demonstrates how brand equity is built by understanding the brand’s customers and implementing strategies accordingly. Keller suggests that if there is a connection between the brand and the consumer, this achieves positive brand equity where the brand has a better chance of acquiring and sustaining customers (Keller, K.L. 2001). The Aaker Model, on the other hand created by David A. Aaker is a marketing model that views brand equity as a mixture of brand awareness, brand loyalty and brand associations, which combine to give the value provided by a product or service. Aaker defines brand equity as a set a brand assets and liabilities that are linked to the brand, including its brand name and

symbols that may add or subtract value from a product or service (David A. Aaker, 1992). When a brand has strong brand equity, it becomes of value because the brand can begin to ask premium prices, which will drive revenue.

According to an article by Linzi Lewis, it is suggested that as a result of the change in weather conditions, there is no choice but to deploy Genetic crop modification methods (Lewis, 2016). With production methods being inherently connected to an organization's brand and with the aforementioned literature in mind, it becomes imperative that when the production method of the product changes so does the nature of the brand begin to change. In order to ensure brand equity it is important that a brand's identity adapt to these changes and a strong brand image be maintained. Transparency is key to maintaining a healthy brand identity and a lack of such might damage it's brand image (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010). In order for crop-based brands to continue to be successful and maintain brand equity it is therefore imperative that the brand finds ways to portray their product in a way that the consumers still want to associate with them and ultimately maintain a level where it's brand identity and image align.

In context of the aforementioned literature, with production methods being inherently connected to an organization's brand, it becomes imperative that when the production method of the product changes so does the nature of the brand begin to change. In order to ensure positive brand equity it is important that a brand's identity adapt to these changes and a strong brand image be maintained. Transparency is key to maintaining a healthy brand identity and a lack of such might damage it's brand image (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010). In order for crop-based food brands to continue to be successful and maintain a strong brand equity, it is therefore imperative that the crop-based brands are transparent about the GM status of their crop products to cement brand loyalty.

Chapter 4: Research Design & Methodology

Research Methodology is a systemic process used to collection information and data for the purpose of making decisions (BusinessDictionary.com, 2018). The methodology of a research paper is a tool employed to aid in the gathering of information pertaining to the research topic to obtain insights and knowledge. In this paper, the use of qualitative research was used to identify the current millennial perception of genetic modification as well as to understand how willing they are to support a crop-based food brand that is not being transparent about their genetic modification methods during the persisting drought conditions.

A Qualitative Methodological Approach

A qualitative approach was adopted the the research question as it seeks to explore: What the impact is on brand equity, from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions? By nature, the primary question is exploratory and seeks to unravel deeper insights about millennial consumer behaviour and perceptions in relation to crop based food brands that deploy genetic modification methods in light on the persisting drought conditions, thus a qualitative approach is fitting.

Population & Sample Size

The population of a research topic is described as a broader group of people from which the results of the study will evolve from. The sample of a research topic is defined as the subset of the identified population. It is important to note that the population should be limited to only individuals or groups relevant to the study and the nature of the research topic will determine the size of that population (Statistics Solutions, 2018). The participants or groups of the study are regarded as the sample of the research topic as they engage and participate in the study by means of interviews, observation or surveys to develop an understanding of the research topic. Hence, the population consists of a broader spectrum of the group whom the results will apply to; whilst the sample comprises the participants who partake in the study (Statistics Solutions, 2018).

The population for this research topic will involve millennial consumers aged 22-37 within a grocery store outlet. This study places primary focus on crop based food brands that deploy genetic crop modification methods thus a homogenous sampling selection method has been applied to assure the sample involves millennial consumers who are aware of or have been in contact with crop based food brands. This was done to gain insight into their perception of genetic modification and their willingness to support brands that are not being transparent. A total of five participants were selected to participate in a semi-structured survey from four different grocery store outlets to compare any possible retail differences and similarities. Before conducting each survey, it was confirmed that the researchers gathered written consent from each participant where they were informed that the research is voluntary and could withdraw any any given point. Permission was also acquired before quoting their perceptions in the following report. The location of the sample will be within Cape Town, South Africa due to the location base of the researcher. All structured interviews will be conducted within Cape Town, at the location of four grocery store outlets where crop-based food brands sell their products.

Data Collection Methods

Data collection is described as systemic process by which information is gathered and measured from specific sources to develop insights into a particular study (Rouse, 2018). It assists to answer research questions, achieve objectives and make informed evaluations of outcomes for future research practice. The research tool used to conduct the qualitative research relating to this research topic is that of field research, particularly structured surveys with specific questions to achieve the research objectives. Data was collected from a total of twenty participants from four different grocery outlet stores with each of four stores ranging between upper to lower price selling price brackets. The choice of individual surveys reduced the risk of participants being influenced by the answers of other participants as opposed to focus groups and allowed for subjective data and record of individual perceptions and opinions.

The purpose of a semi-structured interview is to explore the perceptions and opinions of individuals or groups relating to the research topic. Qualitative interviews deliver an understanding of the social phenomena, whereby detailed information is collected through in-depth communication with the selected participants of the sample (Gill et al., 2008).

Research interviews can be divided into three different types: structured, semi-structured and unstructured (Gill et al., 2008). Due to the nature of the sample being interviewed, the study will make use of semi-structured interviews. The questions brought by the interview will enable the researcher to explore the concepts presented and promote a better understanding. Based on the research concepts listed by the researcher, a compilation of predetermined questions will be based on the concept of genetic modification and the millennial consumer that will be asked to each participant. The choice of semi-structured interviews cater for a participant with time constraints as they require little time to complete and are simple to facilitate, since the interview is verbal in nature.

Before the interview is conducted, the participant will be provided with information pertaining to the intent and description of the research study, as well as an ethical considerations form to assure the participant of their confidentiality and rights. It is highly recommended that a pilot test be conducted to assess the effectiveness of the posed questions to ensure the interview is functional. The data will be collected by the researcher by means of documentation while the interview is being conducted and the questions to be vocalised. Each survey will be conducted at a total of four grocery outlet stores within Cape Town. In order to ensure that the semi-structured survey is focused and controlled, it is important that the survey is conducted face-to-face with the participant (Gill et al., 2008).

Data Analysis

Data analysis is used to understand a phenomenon by gaining and exploring information in-depth (W3.unisa.edu.au, 2018). A thematic data analysis was conducted to the survey answers. This type of analysis is fitting as it can be modified theoretically, and applied to answer a variety of research questions (The University of Auckland School of Psychology). An inductive method to the thematic data-analysis, in which “themes are permitted to materialize from the data itself” (Nowell, 2017), was adopted because there could have been a range of different answers or patterns that occurred from asking the specific research question. This analysis enabled certain deductions to be drawn from the data, as the research documented themes that surfaced and that were notable in previous literature, such as transparency. The inductive analysis of the data revealed recurring concepts such as awareness of genetic modification, brand recall and awareness, preference for alternative GM products, purchase behaviour patterns and attitude towards

a lack of transparency to name a few. From these concepts, common themes and patterns could be drawn by the researcher so that a deeper meaning in the participants' answers could be revealed and understood. These results have been tabulated according to participant and grocery store outlet, to illustrate the most significant answers and notable themes that had arose during the primary research process, and from there conclusions were then made.

With the assistance of exploratory research, identifying the current perception of genetic modification held by millennial consumers, recognizing their willingness to support a crop-based food brand that is vague about their production methods and examining the concepts pertaining to this research topic, a methodological approach has been designed to fulfill the research objectives and clarify the research problem statement. The motive of this research topic is to be able to evaluate and understand the effect that a lack of transparency can have on a brand's equity. (i.e. with the need for alternative farming methods to yield crops under harsher conditions as a result of the persisting drought, what will happen if a crop-based food brand isn't transparent about their production methods?).

Chapter 5: Analysis & Interpretation

In this chapter, an analysis and interpretation of the outcomes of the research was conducted by means of coding. Coding can be described as an analytical process whereby the qualitative data collected through semi-structured interviews is analysed to construct relevant themes (Research Rundowns, 2018).

These findings were gained from 20 semi-structured surveys in Cape Town, South Africa with respondents aged between 22-37 at a total of 4 grocery store outlets. When comparing answers, it was noted that there were no significant differences found between the responses given by purchasers from grocery store outlet A to D other than their awareness of genetic modification that is addressed below.

The Western Cape, South African Millennial Consumer

The respondents were asked a series of questions within the semi-structured survey so that the researcher could identify certain demographic and psychographic profile traits and well as understand the consumer's purchasing behaviour regarding GM maize meal products. A copy of the questions are included below.

- Are you between the age of 22 and 37 years of age?
- Are you aware of genetic modification and or in foods?
- Do you have any comments for me?
- Do you purchase any of these products?

It was identified that the millennial consumer has very specific views on GM. They view genetically modified maize as a unhealthy and "harmful to the body" and would prefer to "eliminate all GM from their diet". It was revealed that consumer's recall of maize meal brands like Pioneer Food White Star Maize Meal, Tiger Brand Ace Maize Meal and Woolworths Super Maize Meal was very high. In some additional comments made, it was interesting to note that some of the participants were entirely unaware of the term genetic modification and that the maize meal they are purchasing has been genetically modified. It was revealed that millennial consumers prefer to purchase non-gm maize products over others. One participant stated "I would never choose GM above ordinary". Millennial consumers as said they were not willing to pay a premium price for maize meal. To

illustrate, one participant explained “I won’t pay premium price for a staple food product, it’s cheap to produce just like bread and milk”. Consumer’s exhibited loyalty to Pioneer Food White Star Maize meal as it is the cheaper option and is “cleaner” and “not grey” like the other options.

Almost all the participants from brands A, B and C are aware of what the term genetically modified foods is however it was interesting to note when it came down to brand D, millennial consumer awareness of GM dropped and the researcher had to explain to the participant what GM is.

One of the participants from brand B brought to the researcher’s attention, an application brought forward by the DuPoint Pioneer and the Department of Agriculture Forestry and Fisheries. In accordance with the Genetically Modified Organisms Act, DuPoint Pioneer and the Department of Agriculture Forestry and Fisheries are required to engage with and ask the public for comment. The general release application is intended to allow for the plantation of the new GMO maize in many commercial maize growing regions (Dear South Africa, 2018). While it was difficult to discern whether the individuals are aged between 22 and 37, it was interesting to view their opinions regarding the topic on a live comment feed. With a vast majority of negative responses, some of the participants stated amongst other comments that “GMO should be made illegal”. The comments revealed that consumers would prefer to support sustainable organic and safe farming industries who produce organic maize meal. Commenters also revealed that they were willing to support an import of GMO maize free products if it meant that they would be consuming maize meal that didn’t “pose a threat to their health”. Commenters also expressed concerns around different cancers believed to be introduced by unfamiliar GMO seeds and GM maize meal was often referred to as a poison to the human body.

Brand Loyalty

The respondents were asked a series of questions to identify to what extent Western Cape millennial consumers willing to support a brand who is not being transparent about their genetic modification methods during the persisting drought conditions. It was revealed that almost every single participant would switch over to another brand if it was revealed that the brand was not being transparent about the gm content in the product. While literature suggested that a consumer might be Magnusson states that if genetically modified foods

were to provide tangible benefits for consumers, their acceptance would increase (Magnusson, M.2004).

It was discovered that under no circumstance would the consumer continue to purchase from a brand that was not being transparent about their production methods. People who do not support GM are purchasing GM maize meal products, whether they are aware of it or not. It is therefore important that the brand makes the consumer aware of the production methods involved in the production of the product to maintain customer loyalty. Even though price was an influential factor in the purchase decisions of some of the participants, when asked if the participant would support the brand had they found out it was in any way being vague or untransparent, almost all the participants said they would waive their support and shift to the competing brand.

In context of the current Western Cape drought and the introduction of new water saving farming methods being sought after and used to grow maize meal under harsh and hotter conditions, it is evident that should a brand not be transparent about their production methods, it is likely that brand customer loyalty will perish as it was revealed that consumers would desert a brand being dishonest about their production methods. This reveals the importance of brand transparency, should a crop-based food brand intend to build and maintain a strong brand equity for a long time to come, the brand needs to educate their consumers about their products, especially where credibility is shown to be a key determinant in the purchase behaviour of the Western Cape millennial consumer.

How do consumers at differing retail outlets demonstrate variations in support for a lack of brand transparency?

In the semi-structured survey, participants were asked to state their opinion with regards to how a lack of transparency would impact competitiveness amongst brand loyalty from the perspective of them as the consumer. The answers were then compared and examined across a total of four different retailers to highlight any possible differences in consumer support for such a brand. Overall it was revealed that consumers would not support a brand that displayed any sort of lack of transparency. This resonates with previous literature such as Carla Enslin's argument of the importance of brand transparency in ensuring a healthy brand (Cook, G; Erwin, K; Carmody P & Enslin, C. 2010). This further resonates with previous literature conducted by David Aaker which expresses the key role

of such in cementing a strong brand equity and maintaining a strong customer relationship for a long time to come (Source: Aaker, A. & Joachimsthaler, E. 2000). It was revealed that there was very little to no difference in the answers provided by the participants and the general consensus of opinion is that should a brand be found guilty of displaying a lack of transparency regarding the GM status of their products, consumers would immediately switch over to a competing brand. One of the participants believe that should a brand not display transparency in any way, they should be held lawfully accountable for their behaviour. The table below summarises the similar opinions held by the participants pertaining to the above-mentioned question.

Table 1: Differences in support for a lack of brand transparency over four different retail outlets.

Retail Outlet	Participant	In your opinion, how would a lack of transparency impact competitiveness amongst brands, loyalty? (i.e from the consumer's point of view)
W	3	"Companies should by law be required to be transparent. I would never support a brand that is not being truthful to me."
W	5	"I would not purchase the product again."
P	9	"Brands that are more transparent about their products generally have more loyal customers because they know that they are getting when they buy said brand's products. Transparency can also equate to trustworthiness and I as a consumer would definitely be more willing to purchase a product from a brand that I trust than one I know nothing about and keeps 'secrets' about their products."
P	10	"I would stop supporting the brand immediately. I would rather pay more for a product I know is gmo free, because I care very much about the health of my family and the effects of gm on the body."
C	13	"Well I no longer support Woolworths ever since I find out they've been lying about the GM content in their super maize meal. I'm not going to support a brand that isn't honest. I do my shopping at Checkers now and I'm certain I can't be the only customer they've lost because of it."
C	14	"I would not support or recommend the product."
S	16	"I would be angry and write them off because I trusted them."
S	20	"I would feel like I'm being lied to, would rear off and go to a different brand and then do a little more research beforehand to see if other brands are doing the same thing when choosing to buy from somewhere else."

Chapter 6: Conclusions & Recommendations

This chapter reveals the answers pertaining to the research objectives that were mentioned earlier in Chapter 1 and revisits the research question. Taking into consideration the literature reviewed in Chapters 2 and 3, the research methodology process as well as the process of coding and interpreting the obtained findings, once the research objectives in this chapter have been answered, solutions pertaining to these objectives will be proposed in order to answer the research problem and therefore conclude the research topic. Ethical consideration and Limitations pertaining to the study are also addressed.

Revisiting the main research question; What is the impact on brand equity, from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions?

The following three sub-questions were posed:

1. What is the current Western Cape millennial consumer perception towards genetic crop modification?
2. To what extent are Western Cape millennial consumers willing to support a brand who is not being transparent about their genetic modification methods during the persisting drought conditions?
3. How do consumers at differing retail outlets demonstrate variations in support for a lack of brand awareness?

Research Question 1: “What is the current Western Cape millennial consumer perception towards genetic crop modification?”

From analysing and interpreting the findings found in Chapter 5, the following themes emerged:

- The millennial consumer;
 - Consumer perception; and
 - Brand awareness.
-
- **The millennial consumer**

When looking at aforementioned themes in detail it can be concluded the millennial consumer can be identified according to specific demographic and psychographic information. Western Cape millennial consumers are between 22 and 37 years of age and included both male and females who purchase products from grocery outlets. These consumers are not limited to maize meal products specifically but are aware of maize meal brands (see brand awareness below).

- **Consumer perception**

Consumer perception is defined as the consumers impression of something, in this case genetic modification (BusinessDictionary.com, 2018). When examining the theme of consumer perception, it can be concluded that these millennials currently hold a negative feeling and opinion towards genetic crop modification and the methods involved. They perceive it to be dangerous, having used words such a “poison” to describe GM products. It was revealed that some of these consumers are so deeply against the GM of maize meal that they suggested a legislation should exist whereby the existence of GM of maize meal in the Western Cape should be prohibited. Whether imported or locally grown, they would prefer to purchase maize meal that is organic as they believe it to be a healthier alternative option to that of GM options. This resonates with previous research, which finds that millennial consumers in general have a negative attitude towards genetic modification and that this low acceptance of genetic modification specifically in agriculture and food production (Magnusson, M.2004).

- **Brand Awareness**

Brand awareness refers to the extent to which consumers are familiar with the qualities or image of a particular brand (Staff, 2018). It was revealed that millennial consumers are very aware of brands such as Tiger Brands Ace Maize Meal, Woolworths Super Maize Meal and Pioneer Food White Star Maize Meal whether they purchase from the brand or not and have come into contact with the brand at some point in their lives. It is important to note that millennial consumers are aware of these brands and it resonates with previous research that reveals that maize meal products exclusive to the brands Woolworths, Pioneer Foods and Tiger Brands contained an average GM content of more than 47%. It

was revealed that Pioneer Food's white star maize meal contained a GM content of 47.7%, Woolworth's super maize meal contained a GMO content of 79.78% and Tiger Brand's Ace maize meal contained a GM content of 77.93% however some of the consumers are unaware that their product has been genetically modified (Jaffer, 2018).

Now that the deeper insight into the millennial consumer and their consumer perception and awareness of certain crop-based brands has been established, it can be said that the Western Cape millennial are not supportive of GM maize meal as suggested in previous literature, and prefer a more organic alternative method. Since these millennials are aware of and have come into contact with brands such as Woolworths, Pioneer Foods and Tiger Brands whose maize meal products, according to previous literature has been genetically modified in some ways or another this leads the researcher to question two below.

Research Question 2: To what extent are Western Cape millennial consumers willing to support a brand who is not being transparent about their genetic modification methods during the persisting drought conditions?"

From analysing and interpreting the findings found in Chapter 5, the following themes emerged:

- Perceived quality;
- Transparency and competitiveness; and
- Brand loyalty.

- **Perceived quality**

Perceived quality is defined as the customer's perception of the overall quality or superiority of a product (Somma, 2018). When asked about their awareness of certain maize meal brands, it was revealed that participants are satisfied with the maize meal product that they are purchasing therefore they continue to support their preferred brand. To illustrate a participant said "I purchase White Star Maize meal because it is cheaper and cleaner than the other brands, it isn't grey in colour and I enjoy the taste". However in another theme that surfaced, the consumers willingness to keep supporting a particular brand changed depending on the brand's transparency and is further described below.

- **Transparency and competitiveness**

Transparency in the context of a brand refers to how open the brand is to its consumers about its methods and practices (Fabrikbrands.com, 2018). Transparency plays a major role in determining the purchase behaviour of a Western Cape millennial and can either make or break a relationship between the consumer and brand. It was revealed that Western Cape millennials do not support dishonest brands and are not afraid to openly revolt against and abandon a brand for its competitor if it is revealed that the brand has not been transparent in any way. Thus, depending on how transparent a crop-based food brand is about its production methods will determine how brand loyal to the millennial consumer is to the brand.

- **Brand loyalty**

Brand loyalty refers to the tendency of consumers to continuously purchase one brand's products over another (TrackMaven | The Marketing Insights Company, 2018). Research revealed that Millennial consumers are not willing to support brands who are not transparent. This can have a domino effect on the consumer's tendency to support a brand, since transparency plays a major role in developing a trustworthy relationship between the brand and consumer. The less likely the millennial consumer is to support a brand, the more harder it becomes for a crop-based brand to establish a strong brand equity as a result. This further resonates with previous research which finds that if there is a connection between the brand and the consumer, this achieves positive brand equity where the brand has a better chance of acquiring and sustaining customers (Keller, K.L. 2001).

When comparing the aforementioned themes, it becomes clear that it is important that a brand is transparent about their production methods especially with the negative perceptions already held by millennial consumers towards GM. Understanding the concept of GM and the importance that brand transparency has in building brand equity, will allow for existing or potential future crop-based food brands to maintain a strong credible and reputation by establishing trustworthy relationships with their consumers.

Careful consideration has been taken to ensure that the results of this study are valid and reliable. The survey did not ask leading questions which would influence the participant to give specific responses. It was hoped that by conducting face-to-face surveys individually that the participants would deliver their honest opinions and not be persuaded by the opinions of others. The research has aided the field in a number of ways. The findings bring to light the current perception held by Western Cape millennial consumers of GM about which there is little research that exists. Furthermore, the results supply insights into millennial behaviour in relation to brands not being transparent about their production methods, where little research exists about this as well. This research study was developed to offer advice to current or future crop-based food brands looking to adopt GM production methods. The study focused on the exploration of how a lack of brand transparency can equate to poor brand equity. The findings gathered were able to assist in creating new insights into the importance of brand transparency within the context of the increasing need for water saving farming methods as a result of the persisting Western Cape drought conditions. placing them on the pillar of strong brand equity in the midst of the persisting Western Cape drought.

Ethical Consideration

Ethical considerations in research play a critical part in helping the researcher distinguish what is acceptable and unacceptable behaviour. Ethical consideration allows the researchers to prevent any distortion or fabrication of information to promote a trustworthy and knowledgeable research study (Cirt.gcu.edu, 2018). The researcher needs to assure the participant that ethical research considerations have been abided by in order to gain their trust.

Potential participants were identified in store and invited to partake in a semi-structured interview. Upon acceptance, a consent form was then provided and signed by the researcher to assure the participant that the research gathered, will be for academic purposes only and that the participant agreed with the procedures. Confidentiality of the participants were offered. A probability sampling method was taken and each of the participants were selected from the different grocery store outlets containing crop-based food brands. When the participant did not meet the age criteria, this process was then repeated. A disclaimer was used to ensure both the participant and the researcher's

consent and without a signed consent form, the semi-structured survey would not be demonstrated (Cirt.gcu.edu, 2018).

Limitations & delimitations

Limitations and delimitations pertaining to this study could magnify or reduce the extent and depth of the findings and insights that can be gathered for a research topic (Enslin, 2014). Limitations take place outside of the researchers control whilst delimitations transpire consequent to decisions made by the researcher, thus there are challenges which can and cannot be solved (Enslin, 2014).

Limitations

It was envisioned that there are certain events one may experience. Some of the consumers were unaware of genetic modification and had to be given an explanation. Due to a time limit, the study could only be collected on a small population of Western Cape millennial purchasers of maize meal as well as budget limitations whereby research could not expanded to cover the entire province, thus 20 participants were selected over 4 difference grocery store outlets to bring texture to the research findings. Due to the short time frame, a longitudinal study will not be possible as information cannot be gathered over a long time period whereby the more time available, the more information could emerge from the study.

Delimitations

This study confines itself to interviewing millennial purchasers of crop-based food brands within the Cape Town area.

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Appendices

Appendix A: Example of explanatory information sheet and consent form for participants

To whom it may concern,

My name is Kristen Ryan and I am a student at Vega School of Brand Leadership. I am currently conducting research under the supervision of Patricia Harpur about the impact on brand equity of crop-based food brands that deploy genetic crop modification methods as a result of the persisting Western Cape drought conditions. I hope that this research will help to gain further insight into what brands can accomplish with their brand image and how it can benefit both existing and potential brands looking to maintain or develop strong brand equity while adopting new water saving farming methods such as genetic modified crops.

I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research so that I can understand the perception you have of genetic modification and of brands that are not being transparent about their production methods. If you decide to participate in this research, I would like to ask you a series on semi-structured survey questions.

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular survey questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You

might, however, indirectly find that it is helpful to talk about your perceptions of GM and your opinion towards brands displaying a lack of transparency. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;
- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the surveys, but only my supervisor and I will have access to these recordings. Nobody else, including anybody at Vega School of Brand Leadership, will have access to your interview information. I would like to use quotes when I discuss the findings of the research but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report, which is a requirement to complete my BA Honours in Strategic Brand Communication. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

Kristen Ryan

079 635 8331

ryankristen74@gmail.com

The contact details of my supervisor are as follows:

Patricia Harpur

083 730 8540

abc@digilearning.co.za

Consent form for participants

I, _____, agree to participate in the research conducted by (your name) about (insert aim of research/ brief summary of exactly what you are researching)

This research has been explained to me and I understand what participation in this research will involve. I understand that:

1. I agree to be interviewed for this research.
2. My confidentiality will be ensured. My name and personal details will be kept private.
3. My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research.
4. I may choose not to answer any of the questions that are asked during the research interview.
5. I may be quoted directly when the research is published, but my identity will be protected.

Signature

Date

Appendix B: Example of Semi-structured Survey

Q1 Are you between the age of 22 and 37 years of age?? Select only ONE option.

Yes No

Q2 Are you aware of genetic modification? Select only ONE option.

Yes No

Q3 Does the price of maize meal influence your purchase decision? Select only ONE option

Yes No

Q4 Do you have any comments for me?

Q5 Which of the following maize meal products are you most aware of? Select only ONE option

Pioneer Food White Star Maize Meal

Tiger Brands Ace Maize Meal

Woolworths Super Maize Meal

Other: (please specify) _____

Q6 Do you purchase any of these products? Which one(s)? (If no, proceed to Q7).

- Pioneer Food White Star Maize Meal
- Tiger Brands Ace Maize Meal
- Woolworths Super Maize Meal
- Other: (please specify) _____

Q7 Would you purchase one of these products? Select only ONE option

- Yes
- No

Q8 Please explain why

Q9 If you answered yes in Q6, would you repurchase this product? Select only ONE option

- Yes
- No

Q10 Please explain why

Q11 Do you prefer to purchase maize meal that is unmodified? Select only ONE option

- Yes
- No
- Doesn't

matter

Q12 Please explain why

Q13 In your opinion, how would a lack of transparency impact competitiveness among brands?

Q14 In your opinion, how would a lack of transparency impact competitiveness among brands, loyalty? (i.e from the consumer's point of view)

Abstract Brand transparency plays an important role in building brand equity and is continuing to play an equally important part in the development of trust between the brand and it's consumer, and is highly considered by millennials when deciding what product to buy. The persisting Western Cape drought has placed immense pressure on crop-based food brands to find alternative water-saving farming methods grow maize meal under harsh weather conditions. Transparency is important to Western Cape millennial consumers and a lack of which can alter their purchase behaviour. By ensuring transparency in all that it does, a brand is able to establish trust with it's consumers and thereby build meaningful relationships with them. Maize meal is one of the staple foods



RESM8419_2018_ALL_VGCT - RESM8419_VGCT1

Assignment 4: Final Research Report (POE)

Kristen Ryan on Mon, Sep 17 2018, 11:42 AM

4% highest match

Submission ID: acd984a3-d205-4376-a1fa-f89ac0a81a61

Kristen Ryan 1500782...

Word Count: 9,486

Attachment ID: 228294172

4%

Citations (14/14)

- 1 Another student's paper
- 2 Another student's paper
- 3 Another student's paper

Appendix E: Final Research Report Summary Table

Title: The impact on brand equity of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions: a triangulation study based on Western Cape millennial consumers.

Research Purpose/ Objective	Primary Research Question	Research Rationale	Seminal Authors/ Sources	Literature Review – Conceptual Framework	Paradigm	Approach	Data Collection Method(s)	Ethics	Assumptions
The purpose of this proposed study was to determine the impact on brand equity, from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of the persisting drought conditions.	What is the impact on brand equity, from the perspective of the Western Cape millennial consumer, of crop-based food brands that deploy genetic crop modification methods as a result of persisting drought conditions?	By measuring the brand equity, the brand is able to remedy areas in order to increase the number of customers willing to recommend the brand and maintain brand loyalty particularly with reference to millennial consumers who want brands that are transparent in their production methods making it all the more important for the producers of the brand to be transparent in their production methods.	Kevin Keller David Aaker	<p>Theme 1: Rise of GM crops</p> <p>Theme 2: South African GM maize brands</p> <p>Theme 3: Consumer perceptions around GM</p> <p>Theme 4: Brand Equity</p> <p>Theme 5: Importance of Brand Transparency</p> <p>Theme 6: Customer Loyalty</p>	Qualitative Naturalist Paradigm	<p>Qualitative and Quantitative Mixed methods/ Population Population Parameters The population for this research topic involved millennial consumers aged 22-37 within a grocery store outlet.</p>	Semi-structured Survey	Potential participants were identified in store and invited to partake in a semi-structured interview. Upon acceptance, a consent form was then provided and signed by the researcher to assure the participant that the research gathered will be for academic purposes only and that the participant agreed with the procedures. Confidentiality of the participants were offered. A probability sampling method was taken and each of the participants were selected from the different grocery store outlets containing crop-based food brands. When the participant did not meet the age criteria, this process was then repeated. A disclaimer was used to ensure both the participant and the researcher's consent and without a signed consent form, the semi-structured survey would not be demonstrated (cfr.gcu.edu , 2018).	It was assumed that Western Cape millennial purchasers do not support genetic modification and as such a lack of transparency would have a negative impact on brand equity.
Research Problem As a result of the change in weather conditions, there is no choice but to deploy Genetic crop modification methods. With production methods being inherently connected to an organization's brand (Magnusson, M.2004), it's imperative that when the production method of the product changes so does the nature of the brand change. In order to ensure brand equity, it is important that a brand's identity adapt to these changes and a strong brand image be maintained. Transparency is key to maintaining a healthy brand identity and a lack of such might damage it's brand image (Cook, G. Erwin, K. Carmody P & Enslin, C. 2010).	Secondary Questions/ Hypotheses/ Objectives 1 What is the current Western Cape millennial consumer perception towards genetic crop modification? 2 To what extent are Western Cape millennial consumers aware of these genetic crop modification production methods? 3 How do consumers at differing retail outlets demonstrate variations in support for a lack of brand awareness?	<ul style="list-style-type: none"> Brand Equity Brand Identity Brand Image Brand Impact Crop-based food Drought Genetic Modification Healthy Brand Millennial Consumer 	<p>Brand equity model by David Aaker</p> <p>CBBE model by Kevin Keller</p> <p><i>How healthy is your brand?</i> By Gordon Cook, Kira Erwin, Patrick Carmody and Carla Enslin,</p>		<p>Sampling Probability Stratified sampling Sampling method Probability Size 20 participants</p>	<p>Data Analysis Method(s) Unit of Analysis Individuals Data Analysis Method(s) A thematic data analysis</p>	<p>Limitations <i>Limitations</i> It was envisioned that there are certain events one may experience. Some of the consumers were unaware of genetic modification and had to be given an explanation. Due to a time limit, the study could only be collected on a small population of Western Cape millennial purchasers of maize meal as well as budget limitations whereby research could not be expanded to cover the entire province, thus 20 participants were selected over 4 different grocery store outlets to bring texture to the research findings. Due to the short time frame, a longitudinal study will not be possible as information cannot be gathered over a long time period whereby the more time available, the more information could emerge from the study.</p> <p><i>Delimitations</i> This study confines itself to interviewing millennial purchasers of crop-based food brands within the Cape Town area.</p>		