



RESEARCH TITLE: Assess Tiger Brands' value in influencing consumer perceptions, behaviours, attitudes in the context of mitigating food waste experiences.

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Abstract

A research report on Food Loss and Waste: Facts and Futures (2019) conducted by FAO, reveal that 10 million tonnes of food go to waste every year. This figure accounts for a third of the 31 million produces annually in South Africa. Fruits, vegetables and cereals account for 70% of the wastage and loss. Findings from the report cites that the wastage and loss occur early in the supply chain. The research problem which the study has undertaken is to assess Tiger Brands' value in influencing consumer perceptions, behaviours, attitudes in the context of mitigating food waste experiences.

A number of people don't realise the amount of food they waste and businesses place focus on mitigating food waste experiences early in the value chain (as most of wastage and loss occurs during the harvest and post-harvest stage), and little emphasis is placed on household wastage. The Council of Scientific & Industrial Research CSIR, (2019) states that food waste can be minimised through proper guidance. This research study applies the Havas Meaningful Brand Index (2013), to assess Tiger Brands supply chain and value activities towards mitigating food wastage and sustainable management and assesses the variables contributing towards food wastage at household level, using The Theory of Planned Behaviour (Fishbein & Ajzen, 1975).

In the context of understanding brand and consumer behaviour in relation to food waste management, methodological approach towards the research, created an in-depth understanding of the attitudes, behaviours. Interactions and social processes that comprise everyday life set the direction for the research in understanding how everyday life is influenced by social structures and social order.

1. Introduction

Food wastage is a global and complex problem that has a direct impact on the three pillars of sustainable development, which includes environment, economic and social (Aktas, et al, 2018). It is estimated that one- third of the food produced globally for human consumption is lost or wasted during the supply value chain (Food & Agriculture Organization, FAO (2017). The figures are estimated at 1.3 billion metric tons of food that doesn't reach the consumer. This study looks at Food wastage from the perspective of Tiger Brands and the consumer. Havas Meaningful Brand Index (2013), was applied to assess Tiger Brand's value activities towards reducing food wastage. This study further applied the Theory of Planned Behaviour (Fishbein & Ajzen, 1975) to conduct qualitative research to establish consumer behaviour towards food wastage and lastly evaluated Tiger Brands communication towards educating consumers on the importance of reducing food wastage.

1.1 Rationale

This research was undertaken to understand Tiger Brands behaviour with regards to waste management and if it had any influence on consumer attitudes, purchase decisions and preferences. Research Findings estimates that if the current production and consumer behaviour remains unchanged, food production may have to increase by 70% globally, to feed 9 billion people by 2050. This would require an increase of 120 million hectare of arable land for production in developing countries (FAO, 2009). Food loss represents a waste of arable land, agricultural tools and equipment, sources such as energy and water, financial and labour inputs. In urban markets, most of the food loss occurs during transit from farm to fork (Hlomandlini, 2019). A number of people don't realise the amount of food they waste and businesses place focus on mitigating food waste experiences early in the value chain (as most of wastage and loss occurs during the harvest and post-harvest stage), and little emphasis is placed on household wastage. The Council of Scientific & Industrial Research CSIR, (2019) states that food waste can be minimised through proper guidance. This study is important as it establishes the variables contributing towards food wastage and puts forward potential interventions which may possibly help with reducing wastage at household level.

1.2 Problem Statement

The problem which the study has undertaken is to assess Tiger Brands' value in influencing consumer perceptions, behaviours, attitudes in the context of mitigating food waste experiences.

1.3 Research Goal

1. To Assess Tiger Brands supply chain and value activities towards mitigating food wastage and sustainable management.
2. To establish the relationship between food wastage and consumer behaviour.
3. To determine if Tiger Brands is effectively addressing and communicating the implications of food wastage to consumers.

1.4 Research Questions

1. What plans does Tiger Brands have in place to reduce food wastage and ensuring sustainable management?
2. Does consumer behaviour have an impact on food wastage?
3. Is Tiger Brands effectively addressing and communicating the importance of food wastage to the consumer?

2. Literature Review

2.1 Introduction

Recent research conducted by The Council for Scientific and Industrial (CSIR, 2019) cite a number of factors which contribute towards food wastage within South African households. The study states that there are discrepancies around date codes, specifically the sell by and expiry dates. Households often forgot the food in storage, the packaging is not correctly sealed upon opening – resulting in poor protection, food products appearing to be old/rotten or old, households prepare more food than needed, slow consumption of purchased products, pests, buying more than needed, and poor cooking skills resulting leading to the discarding of food (CSIR, 2019).

2.2 Food Waste Attitudes Amongst South African Consumers.

Only 13 out of 284 municipalities in South Africa have data on food waste (CSIR, 2019). Figure 1 demonstrates the national data estimations from research done using the sample size of 13 municipalities and Households between 2012 -2013. Research findings show that the Nelson Mandela Metropolitan Municipality has the highest percentage of food waste, the sampling was done randomly at landfill sites. The percentage includes household and commercial waste. Polokwane and eThekweni municipalities accounted for 31% of food wastage using the same sampling at a landfill site.

Food Waste in Municipal Solid Waste in SA

Municipality	% food waste	Comment	Source
City of Cape Town	8	2011 study covering households only	CoCT IWMP, 2015
City of Tshwane	17	Kitchen waste from households reported as organic fraction	Komen et al., 2016
Nelson Mandela Metropolitan Municipality	33	Random sampling of truck entering the landfill site. Include household and commercial waste	Pilusa J. 2017
Polokwane	31		
EThekweni	31		
Msunduzi	22		
Mbombela	16	Percentage of MSW	McCarthy, 2016
Mangaung	15		
Rustenburg	16		
Mhlatuze	23		
Emfuleni	12		
City of Johannesburg	7	Percentage of Household waste.	Oelofse et al., 2018.
Ekurhuleni Metropolitan Municipality	3		

Figure 1: Food Waste in Municipal Solid Waste in South Africa(CSIR, 2019)

2.3 Meaningful Brand Index

The Havas Meaningful Brand Index (2013), states that a meaningful brand is defined by its impact on personal and collective wellbeing, as well as functional benefits. A study conducted by media agency, Havas (2013) revealed that 74% of consumers expressed that they wouldn't care if 74% of the brands they were using daily would disappear" and that only 27% of the brands that they are using notably have an impact on their quality of life and wellbeing. The Meaning Brand Index as illustrated on Figure 2, measures brand strength and value exchange that exists between brands and customers and it's a vital tool to measure brand value, explore customer's perceptions and expectations of the brand, and how these factors contribute to the quality of customer's relations. Research observations state that South Africa is food secure, but not at household level.

South Africa ranked 44th out of 133 countries measured against food affordability, availability, quality and safety criteria (The Economist Intelligence Unit's 2017 Global Food Security Index, 2017). However, it is estimated that 12 million still go to bed hungry. Although South Africa boasts a world-class commercial agriculture, food loss still occurs during the early stages of the value chain where 50% is lost during post-harvest phase (The Economist Intelligence Unit's 2017 Global Food Security Index, 2017). FAO (2017) reveal that fruits and vegetables accounts for 44% of the loss, 26% grains and 15% meat and 13% roots and oil seeds.

2.4 Tiger Brands

Tiger Brand is committed to creating shared value across diverse stakeholder base. Ensuring an active role in driving food and nutrition security, consumer education and food safety (Tiger Brands, 2020). The brand has positioned itself as a market leader, with a consumer-focused strategy driving execution. Some of the brands' product include Fattis and Monis (Spaghetti), Jungle Oats (cereal), Ace (maize) & Tastic Rice (grains). The aforementioned products form a big part of the South African staple diet.

Tiger Brands Foundation operates manager, Karl Muller (2019), states that supermarket chains have come under fire for discarding edible surplus food, while a number of restaurant chains were reluctant to donate all uncooked or unused food supplies to those in need. Tiger Brands is a market leader with a heritage status in the South African market. Their product offerings include, culinary fruit and vegetables, baby food, home care, milling, personal care, rice pasta, snacks & beverages, superfoods and value-added meat products (Tiger Brands, 2019). The brand's agricultural market share is as follows: Grains 29%, rice 43%, pasta 35%, cereals 24% and maize 12% (Tiger Brands, 2019).

This section of the paper focused on Tiger Brands supply chain and value activities in the context of food waste management, applying only the collective well-being constructs of the Meaningful-Brand framework.

According to Meaningful Brands Global Analysis (2016), personal well-being is measured by looking at the quality of personal outcomes of the customer, derived from the brand. This is built around 7 components which contribute to the consumer's personal wellbeing and include physical, financial, organisational, intellectual, social and emotional needs. While Collective Well-being addresses the brand's contribution to the society, community and the environment. It includes the components which demonstrate corporate social responsibility such as environmental, community, employee practices and ethics. The framework highlights key important areas which have an impact on people's lives across markets and the points of brand influence.

The Meaningful Brands Global Analysis (2017) found that brands that went beyond the product and made a positive, tangible impact on what matters to consumers - gained a greater share of consumers lives. These are the brands that are rewarded with stronger attachments and deeper connections, which in turn, helps reinforce trust. It was important to establish Tiger Brands' value in influencing consumer perceptions, behaviours, attitudes in the context of mitigating food waste experiences through this study.

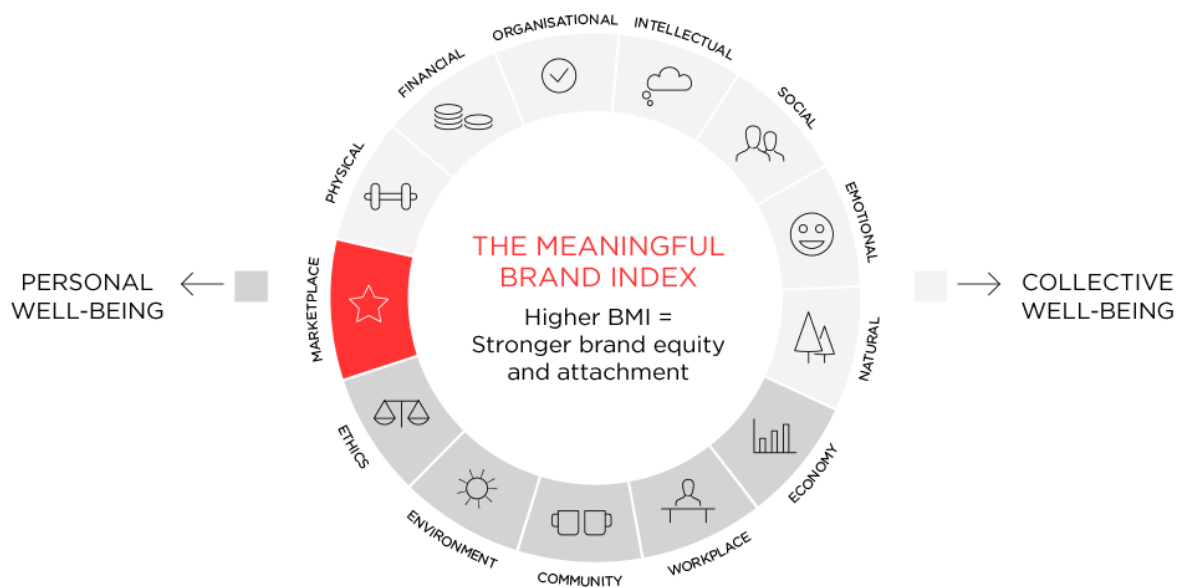


Figure 2: Havas Meaningful Brand Index (2013)

2.4.1 The Environment

Food waste management, energy and water efficiency are the foundations upon which Tiger Brand's environmental sustainability strategy is built. Tiger Brands (2020), cite corporate citizenship as an important construct in the context of food waste management. According to the brand, the majority of the waste within their value chain is generated during the manufacturing processes or as a by-product of these processes (Tiger Brands, 2019). The brand also understands that the poorest in society are the ones negatively impacted by inadequate waste management. They are a set of targets to reduce waste to landfill by 24% and packaging waste by 15% by 2021 (Tiger Brands, 2019).

Tiger Brands (2019), states that their objective is to build a culture of waste segregation and to achieve this, the brand has increasingly placed emphasis on the reduction, reuse and recycling of waste generated in the production processes. Furthermore, the brand states that it ensures that the remaining waste is disposed in a responsible manner and not producing hazardous waste (Tiger Brands, 2018).

Tiger Brands has introduced initiatives which focus on reducing primary, secondary and tertiary packaging, utilizing recycled plastics where possible (Tiger Brand, 2020). The brand continues to carefully investigate the use of biodegradable packaging to replace current non-recyclable substrates with alternatives (Tiger Brand, 2020).

Additionally, Tiger Brands (2020), is working with CSIR to enhance manufacturing industry competitiveness through resource efficiency and cleaner production, ensuring that they adopt a science-based emission reduction target in accordance to climate policies. Tiger Brand (2019), is committed to sustainable operations throughout the value chain with environmental targets including the reduction of water usage by 15% by 2021, to achieve this, the brand has enlisted the support of the National Cleaner Production Centre (NCPC) (Tiger brands, 2020).

The brand's 2022 targets include improving energy efficiencies by 15%, reducing waste by 12%, water consumption by 15%, packaging by 9%, eliminate carbon emissions and Green House Gases (GHG) as far as possible. Although the brand is committed towards environmental sustainability, The Brand is committed towards sustainable operations, but doesn't mention in detail the extent to which it plans to communicate food wastage activities to shift consumer behaviour and perspectives associated at household level.

2.5 Theoretical foundation of (Theory of planned Behaviour)

When it comes to understanding consumer behaviour, the Theory of Planned Behaviour (TPB) (Ajzen, 1975) as illustrated in Figure 3, has been widely applied in various studies and it has provided predictive power of attitudes, subjective norms, perceived control and intentions on the behaviour. Researcher have used the Theory of Planned Behaviour (1975), which upholds that intention is the only direct predecessor of behaviour and that the intention to perform a certain behaviour is informed by attitude, subjective-norms and perceived-Behavioral control(Fishbein & Ajzen, 1991).

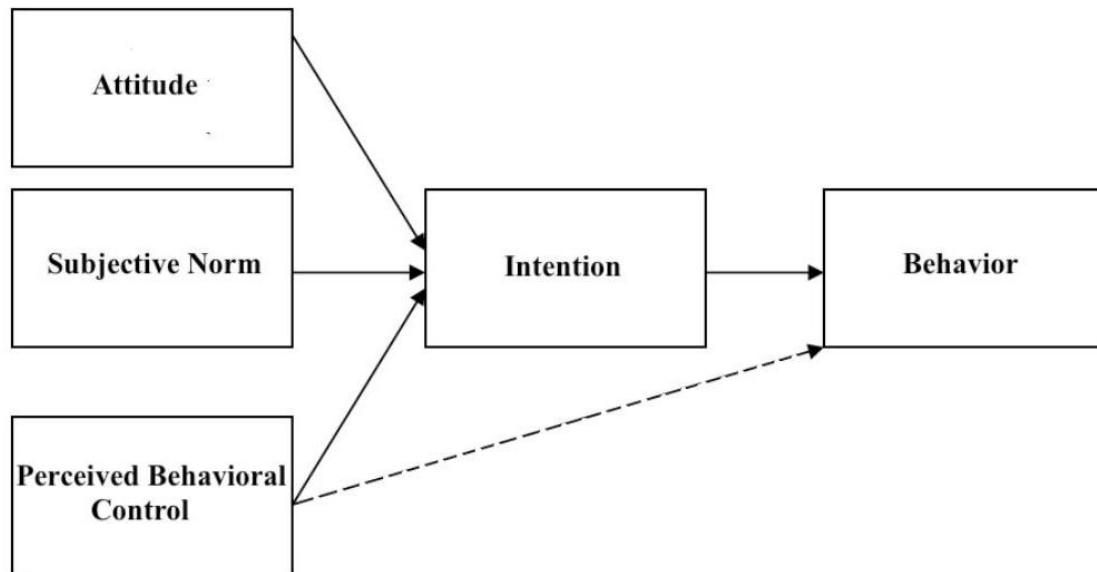


Figure 3: The Theory of Planned Behaviour (Fishbein, M., & Ajzen, I. (1975)

2.5.1 Behaviour

The theory forms part of evolving set of theories which includes earlier theories of Reasoned Action (TRA), and later Reasoned Action Approach (RAA) (Fishbein & Ajzen, 2010). The later adaptations of the theory are a result of the limitations the original model had in dealing with behaviours over which people had incomplete volitional control (Fishbein & Ajzen, 2010). The central theme of the theory is an individual's intention to perform a given behaviour (Fishbein, 2007). The intentions are therefore assumed to capture the motivational factors that influence a behaviour. According to Ajzen (2010), these form part of the indicators of how people are willing to try, and of how much effort they plan to employ in order to perform the behaviours – and the more likely should be its performance (Fishbein & Ajzen, 2010).

2.5.2 Intention

Researchers have found that the theory is well-supported by empirical evidence (Graham-Rowe, 2015). The intentions to perform different behaviours can be predicted with a high level of accuracy resulting from the attitudes towards the behaviour, subjective norms and perceived behavioural control have proven to be related to appropriate sets of salient behavioural, normative and control beliefs about the behaviour (Fishbein & Ajzen, 2010). The theory highlights that the performance of most depends on non-motivational factors as the availability of requisite opportunities and resources, money, skills cooperation (Ajzen, 1985).

2.5.3 Subjective Norms

A Global measure of the Subjective Norm component of the theory is usually obtained by asking respondents the extent to which they would approve or disapprove on carrying out a given behaviour (Ajzen, 1985). The Behavioural Control component of the theory deals with the presence or absence of the requisite resources and opportunities. (Ajzen, 1985). The set of control beliefs may be based on past experiences with the behaviour, but they are also influenced by secondary experiences and information from friends (Fishbein, 1985).

2.5.4 Attitudes

The TPB model states that attitudes develop from the beliefs people hold about the object or attitude. According to Fishbein & Ajzen (2010), individuals form beliefs about an object by associating it with certain attributes, characteristics and events. Each belief links the behaviour to a certain outcome or attributes such as the cost incurred by performing the behaviour and the behaviour (Fishbein & Ajzen, 2010). Ajzen (1985), further states that since attitudes linked to the behaviour are already measured and valued positively or negatively. Individuals automatically and simultaneously acquire an attitude towards the behaviour (Ajzen, 1991).

2.5.5 Perceived behavioural control

The more resources and opportunities individuals believe they have, the less obstacles they anticipate, the greater should be their perceived control over the behaviour (Ajzen, 1985). Researchers have used the TPB model to explain consumer behaviours, perspective, expectations and habits. In the context of food attitudes and behaviours. Ghani, (2013) used the model and the construct of situational factors to gain insights into food waste separation behaviour. The researchers were able to explain the percentage in the variety of intention to separate (Ghani, 2013). While Graham-Rowe, (2015) employed the model to investigate food wastage in households and the study concluded that the intention to reduce household fruit and vegetable waste were directly predicted by attitude, subjective norm and Perceived behavioural control (Graham-Rowe, 2015).

In another study conducted by Russell (2017), he applied the theory to understand food waste behaviour, where the intention construct and behaviour concluded a negative relationship between the two. The study incorporated emotions, habits and other variables to explain the percentage of the variance in food waste behaviour (Russell, 2017). Similarly, Mondéjar-Jiméne, (2016) applied the TPB model to investigate the Mediterranean diet, where they found that the variety in food waste behaviour was as a result of an individual characteristics and situational factors such as economic, socio-cultural and environmental factors of the country where the individual lived (Mondéjar-Jiméne, 2016).

2.6 Summary

The Theory of Planned Behaviour (1991) & Havas Meaning Brand Index (2013), were instrumental to this research study, as it guided the assessment of Tiger Brands' brand value in the context of food management in relation to the attitudes, behaviours and perception of its consumers. The combination of the aforementioned research models helped with investigating and explaining food waste behaviour. The TPB model set the theoretical direction upon which the foundation of this research paper was structured.

3. Research Paradigm

Research paradigms are characterized by the set of common beliefs and agreements shared between scientists about how problems should be understood and addressed (Kuhn, 1962).

3.1 Interpretivism Paradigm

The Interpretivist paradigm was chosen for the purpose of this paper. The framework was applied to understand the knowledge related to human and social sciences (Hammersley, 2013). Humans interpret their world and act based on their understanding while the world does not (Hammersley, 2013). Consequently, this paradigm applies a relativist ontology where a single phenomenon may have multiple interpretations instead of a truth that can be measured (Creswell, 2007).

3.1.1 Epistemological position

The role of the Interpretivism model assisted with gaining a deeper understanding food wastage behaviour at household level and tried to not generalise the base of understanding for the entire population. Hammersley (2013), points out that since this paradigm is entrenched in human relationships, researchers must understand the diverse ways in which they see and experience the world through a variety of contexts, cultures and remove the bias associated with studying the events and the people with their interpretations (Hammersley, 2013). Interpretivism was applied to better understand and describe meaningful social actions and experiences of Tiger Brands in relation to customer perspectives and experiences towards food waste management.

3.1.2 Metatheoretical Position

Within the context of the chosen framework, an inductive methodological approach was employed to connect findings to the existing theory. The objective of inductive qualitative research was not to test a theory, but to think of the relationship between the existing theory on food wastage and research. This paradigm helps to understand the theoretical basis upon which research design and methods are formulated (Sim and Wright, 2008). It is important to note that the methodological position of interpretivism theory is not the only issues influencing the conduct of social constructivism research, but that epistemological and ontological assumptions play important roles in influencing the method and design of research (Bryman, 2008).

3.1.3 Metatheoretical Position

According to Gergen (1985), the ontological position of Interpretivism is entrenched in social constructivism. Social constructivism is defined as a social construction of reality, it is a theory of knowledge of sociology and the communication that examines the development jointly constructed to understanding the world (Gergen, 1985). According to Burr (1995), Social Constructivism includes the rejection of assumptions about the nature of mind and theories of causality and places focus on the complexities and interrelatedness of individual perspectives and assumptions. Interrelatedness may be present within specific cultures, but more work needs to be done before these connotations can be described with certainty (Owen, 1995). This means that it does not only offer a new analysis of topics such as attitudes which can be included into our existing framework of understanding, but that the framework itself has to change, this comes with understanding every aspect of social and psychological life (Burr, 1995).

3.1.4 Methodological Position

According to Owen (1995), the context of the chosen research paradigm, presents the prospect of diversifying views in order to study a phenomenon and also understand events and humans in a social setting. The Methodological position of the paradigm is rooted in grounded theory and ethnography case studies or life history to gain insiders' insights (Tuli, 2010). This approach helped with gathering authentic and valuable information from interviewees. This research study, leveraged on interactive one-on-one interviews which in turn, presented the researcher with the opportunity to investigate and prompt things that could not otherwise be observed, for example, interviewee's thoughts, values, feelings and insights.

4. Research Design

This research paper drew upon the Interpretivism Paradigm which played a role in defining Tiger Brand's behaviour in regard to addressing food wastage from a consumer perspective. The framework supported by an inductive approach, helped with measuring the extent to which intentions informed food wastage behaviour and the relationship between brand value activities and consumer influences. Ultimately, the Theory of Planned Behaviour helped with understanding the relationship between food wastage and consumer behaviour.

4.1 Research Methodology

Rajasekar (2006), defines research as a logical and systematic search for new and useful information on a particular topic. It includes the investigation of finding solutions to address scientific and social problems through objective and systematic analysis. According to Goundar (2012), a research methodology is essentially the procedures by which researchers describe, explain and predict a phenomenon. One can look at it as a workplan and the study of methods by which knowledge is gained. According to Goundar (2012), research can be quantitative or qualitative. He mentions that quantitative research is based on the measurement of quantity or amount, while qualitative research involves quality and is focused on getting the meaning, feeling and description of the situation (Rajasekar, 2006).

This research study used qualitative research as the Interpretivism paradigm is dependent on observations and descriptions from subjects. Qualitative research was instrumental to understanding food wastage from a consumer perspective. Although qualitative research is subjective, the method was used to gain knowledge on consumer attitudes, behaviours and opinions. According to Goundar (2012), the qualitative method is designed to reveal the meanings that inform the action or outcomes that are usually measured by quantitative research. Therefore, qualitative helped with understanding behaviours in relation to social life.

4.2 Research Method

The purpose of a research method is to find solutions to research problems, while research methodology aims at the employment of the correct procedures to find out solutions (Karim & Ghani, 2013). Research methodologies create the foundation upon which, research methods can be properly conducted. While qualitative research calls for in-depth perceptions and descriptions of targeted population, places and events, research findings are collected through variety of methods (Cook, 2015). In the context of food attitudes and behaviours, researchers have used the TPB model to explain consumer behaviours, perspective, expectations and habits (Karim & Ghani, 2013). This research relied on one-on-one/ in-depth interviews with participants over a voice call. This method helped with understanding of attitudes, behaviours, events, interactions and social processes using the construct of the TPB model to frame questions.

4.3 Population & Sampling

A population is a complete set of people with a specialized set of characteristics, and a sample is a subset of the population (Cook, 2015). Banerjee & Chaundhury (2010), define a population as an entire group about which some information is required to be ascertained. Maree (2016), states that there are two types of sampling, which are probability sampling and non-probability sampling. Probability sampling is constructed on the basis that every member of a population has a known and equal chance of being selected for the research (Banerjee & Chaundhury, 2010) . For instance, if there is a population of 100 people, each person would have odds of 1 out of 100 of being chosen. While with non-probability sampling, those odds are not equal (Maree, 2016). For instance, a participant might have a higher chance of being chosen if they are in close proximity to the researcher. This research study used the non-probability sampling, although it didn't offer the researcher the opportunity to create a sample that represented the population, it was suitable for qualitative research. Participants were not selected at random, however, it followed a criterion which stipulated that chosen household representatives should be living with 2-3 people within the household. Participants were accessible to the researcher.

4.4 Research Instrument & Data Collection Method

Kumar (2011), refers to research instruments as measurement tools for example, surveys or questionnaires, designed and used to collect data on a topic of interest from research subjects. The research study relied on qualitative research to understand consumer and brand behaviour in relationship to food wastage, the chosen data collection method was a semi-structured approach through conducting one-on-one interviews, using a questionnaire.

Interview questions comprised of open-ended questions and were drafted, using the constructs of the Theory of Planned Behaviour (TPB) framework as a guide. Questions were categorised using the framework to address Attitudes, Subjective norm and Perceived Behavioral control related to the Intention to carry out a Behaviour. In the context of understanding consumer behaviour, this interview format helped with defining the areas to be explored and also allowed the interviewer and interviewee to initiate follow-up questions in order to pursue an idea or response in more detail (Chadwick et al.,2018). In comparison to structured interviews, this chosen approach offered flexibility and allowed for the discovery and at times the elaboration of information that was important to interviewees. Table 1 outlines the undertaken research plan.

Table 1: Research Outline

Research Method	One-on-one in-depth interviews, conducted virtually (Voice call on Zoom & WhatsApp)
Target Population & sample size	5 households (comprising of 3-4 people) 1 representative from each household was interviewed
Sampling Method	Non-probability - Convenience Sampling
Data Collection Method	Semi-Structured approach - Questions were categorised using TPB construct. Interviewee answered questions by researcher. Raw data was collected during recorded virtual interviews, extracted, transcribed using and analysed thematically according to TPB construct
Data Analysis	Narrative Analysis – answers from the research were categorised into these themes; Background, Attitudes, Subjective Norms & Perceived Behavioral Control.

Source : Researcher's own compilation

4.5 Data Analysis & Processing

Silverman (2000), states that a thematic analysis is conducted to identify the main themes which have emerged from the interview. The process involves the interpretation and codification of raw data that is grouped categories and themes. Silverman (2000), further elaborates that the method is systematic and data-driven, it comprises of abstraction of single quotes which are grouped and reflect main themes deriving from the interview questions. The analysis of qualitative data is different from quantitative data, as qualitative data is made up of words, observations or even symbols (Bhatia, 2018). Firstly, the analysis and the preparation of the data was in parallel with getting familiar with the data – the researcher began to look for patterns and revisited the research objectives to identify the questions that the collected data could answer. Secondly, the researcher used the TPB constructs to ensure credibility, this took the form Of summarising broader ideas related to their behaviours and quotes. Lastly, once the data was categorized, the researcher identified the data and patterns that could answer the research question.

In the context of this research study, a thematic analysis of data was used to categorize findings in accordance to the constructs of the TPB model which grouped attitudes, subjective norms and perceived behavioural control in order to understand intention related to food wastage behaviour. The framework helped with understanding food wastage behaviour looking at consumer attitudes and their perceived control, but also understanding Tiger Brands role in mitigating food wastage experiences at household level, and other external influence by asking questions which fell under the subjective norm category. Annexure A outlines a sample of open-ended questions which the study will use.

4.6 Summary

This research study followed a non-probability approach. Cook (2015), refers to the method as “grab sampling”, it comprises of accessible subjects, using convenient sampling (Silverman, 2000). It was found to be suitable for this research study, due to the convenience of time, effort and money. This method of sampling allowed for ethical considerations such as consent and for any questions to be reviewed by the researcher before the interview

5. Data Analysis and Presentation of Results – Table 2

1. What is your combined household budget for food? And how many people do you live with?

Household 1	R4000, 2 people
Household 2	R1500 – R2000 , I live with two other people
Household 3	R2500 on groceries and R800 on takeaways, it's the two of us
Household 4	R3000, we are 4 in the household, if my sister is around. We all buy separately once off (staples), and vegetables separately
Household 5	R1800, I stay with two other people

2. Looking at your shopping list and pantry, what does your staple diet look like?

Household 1	Fruits, vegetables, protein and snacks
Household 2	Breakfast - cereal (muesli & cornflakes) Lunch – Leftovers from last night or sandwich Supper -Starch (rice, veggies and meat)
Household 3	Breakfast – cereal (All Brans, muesli oats or Weetbix), English breakfast on weekends Supper – cook pasta, stew or make wraps (we only cook twice a week)
Household 4	Fast food on weekends. Pita bread, home-made pizza, curry's, rotis, chicken, potatoes, greens, basically carbohydrates
Household 5	Dinner and lunch usually maize, protein and two vegetables, breakfast, cereal (soft-porridge, oats, toast or Maltabella. Breakfast – cereal (Jungle Oats, Weetbix & Cheerios), the rest of my family can eat whatever they want, it's not fixed.

3. Have you heard about Tiger Brands, if yes, what do you know about them?

Household 1	Yes, food manufacturer, RCL's competitors
Household 2	I don't know, I assume its part of Bokomo brands?
Household 3	Yes, I know that it's a group with sub-brands under it
Household 4	Yes, Jungle Oats, after the Listeriosis case I stay away from polony. I know that Tiger Brands own other brands
Household 5	I know that it's a brand of brands that deals with food

4. From the list you've mentioned, can you tell which food items are from Tiger Brands? (Look for the label on packaging)

Household 1	Koo beans
Household 2	I don't know, I don't look at brand attachments
Household 3	Yes, by the logo of the Tiger
Household 4	Not obvious, but visible on Jungle Oats, because of the picture of the Tiger.
Household 5	We have a storage system, where we store the food in containers and discard the packaging of most food items. But I think tin stuff (baked beans), and Jungle oats.

5. What are your opinions on food wastage? Which statement fits your food wastage behaviour?

a. I feel bad when food is wasted.

b. I was raised to believe that food should not be wasted at all.

c. I think that food should not be waste. However, at times its out of my control.

d. Throwing and wasting food doesn't bother me at all.	
Household 1	B & C
Household 2	A & C
Household 3	C. In regard to certain food, we don't check expiry food
Household 4	A & B, I can control what I can throw and prepare sufficient food
Household 5	A & B
6. In your opinion, what do you consider to be food wastage?	
Household 1	Cooking a meal, storing in the fridge and discarding it.
Household 2	Throwing away food, I "sniff-taste" spoiled food, I consume expiry food if it's still edible.
Household 3	Throwing food in general, especially if something that could've been eaten, like prioritizing leftovers.
Household 4	If you throw food that is spoiled and if you don't finish the food you've prepared
Household 5	Throwing away food, food that is not consumed, preparing or cooking too much and a day after, it spoils, and you throw out. also buying stuff you don't need which lead to spoilage.
7. How many times do you go shopping in a month?	
Household 1	Twice a month, once in bulk, add-ons 3 times a month
Household 2	Once in bulk and bread every second day, Sasko, Albany and eggs every second week.
Household 3	Twice a month
Household 4	Once off in the beginning of the month, every second week for snacks. I can say that 3-4 times to get more food items.
Household 5	Buy once in bulk, usually meat and vegetables, milk and bread every two weeks.
8. Looking at your shopping list, what do you buy the most? For example, fresh produce, meats, longer-shelf life items like maize	
Household 1	I buy fresh produce a lot, longer-shelf items bought in bulk every 2-3 months
Household 2	Meat
Household 3	Meat, followed by vegetables and maize and rice, every 2 months.
Household 4	Meat (chicken), flour, chocolate, sugar, cheese, eggs, milk and vegetables & fruits from Food Lovers Market.
Household 5	Fresh produce from a wholesaler or supermarket
9. Did someone educate you on food wastage? For example; a friend encouraging you check the expiry dates before and post-purchase	
Household 1	Not really, you learn as you go. I check expiry dates on sale and zero demand food items
Household 2	Not really, offer information, awareness and campaigns on tv or online articles
Household 3	Yes, my mom. She taught me to check expiry date when purchasing and reading it in store and looking at suitable to store for example, fridge vs cupboard storage, and to freeze vegetables
Household 4	Yes, especially when shopping, I take it into consideration. I always look for the expiry date. We've returned expired food and my friends have told me to check the expiry dates on toiletries as well.
Household 5	I've read about it, it's a combination of word of mouth and family educating me on what to buy and what not to buy, for example, buying fresh produce weekly, and longer shelf-life items, e.g., non-perishable items in bulk. And also, to buy what you need.

10. Looking at 3 edible products from Tiger Brands, do you think that the expiry dates on items are visible and easy to read?

Household 1	Koo beans, expiry date is hidden at the bottom of the tin and not easy to read. Wish it was on the top of the rim. I have to intentional look for it.
Household 2	I don't pay attention when a food item was produced or made, just check the best-before-dates.
Household 3	They do, they are easy to read, although you have to turn the packaging.
Household 4	I don't think a lot of brands are visible, I guess you have to search for it
Household 5	Definitely, manufactured date and expiry label as well as Halaal label

11. Which statement fits your current food management influence & elaborate?

a. My communication, friends and family think that my efforts towards reducing food waste is important.

b. I give left-over food to those in need and my friends can see that.

c. My Friends, family and community encourage me not to waste food.

d. My friends and family don't waste food, so I follow them as an example.

Household 1	C. I grew up and raised to not waste food as it's a privilege. Was told to dish up enough and go for seconds instead of dishing too much and not finishing. I think I am where I am because of family influence that has shaped my food management style.
Household 2	D. Though I'd still be conscious of my food wastage footprint.
Household 3	C. Even if they didn't encourage me, I'd still save food.
Household 4	C. they encourage me, I'm aware if I waste, I dish less because wastage is money down the drain.
Household 5	A, B & C. I didn't pick option D because they also waste food. I give food to needy people, I'm an advocate for mitigating food wastage.

12. Do you think that Tiger Brand communicates the importance of reducing food wastage? If yes, what interventions have you seen or know about? If No, what would you like to see them do?

Household 1	Haven't seen any interventions or maybe I don't have access, and algorithms don't match my profile. I don't think they are doing enough because they are not visible and maybe they are only visible on the charity side of things. They must be visible even to small communities.
Household 2	I don't know
Household 3	No, they don't focus on food wastage, rather on advertising their products.
Household 4	No, not aware, it is important to have knowledge to not waste food. It would be easy if I had a pet, for example; to give potato peels to. The brand must let people know about food wastage from household level and be visible on social media. YouTube ad's – would get my attention, Tv-for my family and twitter to communicate to my sister, social media ads always get grab my attention.
Household 5	I don't know. I haven't seen anything food wastage, or any signage/visibility. What I would like to see them do, is to create an advert which encourages people to donate non-perishable food, share left over food.

13. Which statement fits your current food management style?

a. I find it difficult to store food, to cook sufficient food for household consumption.

b. I need to be reminded not to waste food or to manage it correctly.

c. Everyone in the household have their own dietary requirements, therefore each person prepares their own meal.	
d. I forget to check the expiry date on food items.	
Household 1	D. I forget to regularly check the expiry date, but most times items fall with the dates.
Household 2	D. Food spoils before I forget to check expiry date
Household 3	A . I need to be reminded to store food in a correct manner
Household 4	B. They don't necessarily remind me, but I need someone to show me how not to waste food. For example, a Korean friend told me that they are forced to recycle, separate wastage, food wastage in particular is weighed, scanned then you're sent a bill. So, the more food you waste the more you pay.
Household 5	A & C
14. At the top of your mind, which food category would you measure to be high (h), medium (m), or low (l)wastage in your household?	
Household 1	H -Fresh produce (I buy too much fruits & vegetables; I need to consider buying weekly) M - leftover food, discarded L - Grains
Household 2	H -Fresh produce M -n/a L - mat and long shelf-life food items
Household 3	H -Cooked food M - Dairy products
Household 4	H - Fresh produce, especially lettuce & tomatoes M - Cooked food discarded L - Quinoa, grains, seeds & flour
Household 5	H -Fresh produce, cause at times don't have enough time to cook L - Grains & close to zero cooked food wasted.
15. What are the steps you want to take in efforts to reducing food wastage?	
Household 1	To plan meals, though its challenging when living with someone and not knowing exactly what you both want.
Household 2	To buy for my stomach and not for my eyes, not to buy in bulk but, weekly and use food responsibly
Household 3	To cook the food before they expire or get spoiled
Household 4	Buy food that I'm going to eat, maybe follow recipes, but then what happens if it doesn't turn out good.
Household 5	To cook sufficient, read the labels, give way food and make everyone in household should have same diet

5.1 Data Analysis and Presentation of Results – Table 3

Background	<u>Q1 Results:</u> An average of R3460 is spent monthly on food items in an average household of 3 people. <u>Q2. Results:</u> The average household staple diet of the 5 households, comprise of cereal for breakfast, takeaways or easy to make meals like wraps and sandwiches for lunch, and protein, maize and vegetables for supper. <u>Q3. Results:</u> 4/5 household representatives have heard about Tiger brands and cited them as a Brand with sub-brands. Household 4 citing the Listeriosis outbreak at one of their factories. But no in-depth indication that they are extensively knowledgeable about the rand. <u>Q4. Results:</u> there was a clear association of brand, participating citing Tiger Brands brand identity, seeing the logo of the Tiger on their products which included Jungle Oats & KOO baked beans. <u>Q7. Results:</u> On average household shopping happens once a month for bulk items (Longer-shelf-life items) and 2 -3 times for fresh produce such as vegetables, fruits and dairy products. <u>Q8. Results:</u> Meat & Fresh produce such as vegetables and fruits topped the shopping list of participants as they buy these food categories the most.
Attitudes (Behavioral beliefs)	<u>Q5. Results:</u> None of the household representatives picked option D, which is an indication that food wastage does bother them. Option A,B & C were all ticked 3 times, which indicates that they feel bad when food is wasted, although 3/5 households have mentioned that at times it's out of their control. <u>Q6. Results:</u> All households understand what constitutes food wastage, with households citing the discarding of food, which could've been avoided through proper food planning like prioritizing leftovers, preparing enough for immediate consumption and buying needed items.
Subjective Norm (Motivation to comply & Influence)	<u>Q9. Results:</u> 2/5 households mentioned that no-one directly educated them on food wastage, while 3/5 households mentioned that they were educated on the importance of checking and reading expiry date on food items and advise on how to plan around food purchases, for example what to buy in bulk and what to buy bi-weekly. <u>Q11. Results:</u> 4/5 house-hold representatives picked option C, which mentions that their friends, family and community

	encourage them not to waste food. When asked if their food management style would shift in the absence of such influences, they mentioned that they'd still be conscious of food wastage and not waste food. With one household citing that they follow their friends and family as an example. <u>Q.12. Results:</u> All Households didn't answer "Yes" to the question. They answered, " I don't know", and "No". Household representatives mentioned that perhaps the information is being communicated but it doesn't reach them. With one household saying that the brand's focus is on advertising their products than raising awareness on food wastage; Suggested interventions – Households mentioned that the brand must be visible when communicating about food wastage and also target smaller communities at household level and to consider putting advertisements which encourage positive food behaviour.
Perceived Behavioral Control (Degree of control)	<u>Q.10. Results:</u> Participants mentioned that the labelling of the date produced and expiry date where not visible on the packaging, you have to look for it as it is hidden beneath the packaging of the product . Although they also mention that once they located the labelling, it was easy to read. <u>Q13. Results:</u> 2/5 Households chose option D and mentioned, forgetting to check the expiry dates on food items, 3/5 household representatives saying that they found it difficult to store food correctly and to cook enough for the household. Household 4 mentioning that they need someone to show them how to minimise food wastage. <u>Q.14 Results:</u> Highest food Wastage Category – 4/5 households cited fresh produce (vegetables & fruits) making up the highest percentage of their household waste. Medium food Wastage Category – Households citing leftover food and dairy products making up a medium fraction Low food Wastage Category- Household mentioned, longer-shelf-life items such as grains to make up a small fraction of their waste. <u>Q15. Results:</u> Households representative mentioned that in efforts to reducing food wastage, they want to plan meals, to buy and cook enough for household consumption, to check the expiry dates and to align household dietary requirements.

6. Discussion of Results

Ajzen (1985), further states that since attitudes linked to the behaviour are already measured and valued positively or negatively. Individuals automatically and simultaneously acquire an attitude towards the behaviour (Ajzen, 1991). Findings from this research study show that attitudes related to food wastage is positive as respondents felt very bad about wasting food and they cited lack of planning, bulk-buying and not considering the expiry dates as some of the factors which left them to waste food. A negative outlook on food wastage, would have meant tat respondents didn't feel bad about wasting food. Their attitudes are formed by their behavioural beliefs that food wastage is a negative thong and could be improved with proper guidance.

On the other hand, the research study found that their motivation to comply is influenced by the friends and family - 4/5 house-hold representatives mentioned that their friends, family and community encouraged them not to waste food. When asked if their food management style would shift in the absence of such influences, they mentioned that they'd still be conscious of their food wastage behaviour which shows the extent to which they approve or disapprove on carrying out their food wastage behaviour. One household representative mentioned that they follow their friends and family as an example. Although their set of control may be based on past experiences with behaviour learned form friends and family, it is also informed by their secondary experiences.

When asked if they thought that Tiger Brand communicates the importance of reducing food wastage? All household representatives answered, "Maybe" and "No", most citing that the information that should be communicated is not reaching them, one representative saying that the brand places focus on advertising its products and not raising awareness on issues such as food wastage. Their perceived control on food wastage, doesn't suggest a negative division, even in the albescence of Brand communication. Although household representatives mention that information and reminders would be beneficial and improve their current food wastage behaviour.

Research data shows that Tiger Brands is strong in terms of implementing sustainable operations, however, from a consumer perspective, it's not doing enough in terms of communicating and raising awareness on food wastage at household level. The study proves that the intention to mitigate food wastage is related to a degree Subjective Norm (of motivation to comply) and Perceived Behavioral Control - which proves to be accompanied by a level of responsibility and awareness.

7. Conclusions and Recommendations

7.1 Ethical Considerations

Ethical considerations formed a big part of this research study, Connelly (2014) states that ethics should not be an afterthought, or a side note when it comes to research studies. They are an aspect of research and must remain at the forefront of your work. Ethical considerations of this research study included validity, which meant that the research design addressed the relevant and specific questions which related to the research topic. The researcher ensured that participation was purely voluntary, and participants had the information needed to make an informed decision regarding their participation in the study. The proposed outline of the study was sent out to the institution's Research Ethics Committee for an assessment and review to ensure that the proposed study held ethical integrity. The interviews were only conducted following ethical clearance from the Institution. Interviewees were contacted to be informed on their consent to voluntarily participate in the study. Information on confidentiality, purpose of the study, was also be communicated to ensure that participants were informed, understood the objectives/context of the study and that their information was protected. Suitable time was scheduled for the interviews and interviewees were granted to choose their preferred form of virtual communication.

7.2 Research Limitations and Trustworthiness

Although the methodological approach of qualitative research helped with gaining an understanding of underlying reasons and motivation. The chosen research method did not measure the actual behaviour but, the respondents perception and their own assessment on household behaviour. The scope of qualitative research is fairly limited, so its findings were subjective. However, it was imperative for the researcher to exercise caution during the analysis process to ensure that there was no personal bias towards the interpretation of the findings. It is important to note that the method led to a role of critical inquiry in terms of improving the practicality of the research.

7.3 Recommendations

Although the methodological approach of the undertaken qualitative research helped with gathering data which helped to understanding food wastage behaviour at household level. The sample size doesn't measure the actual behaviour of the population as the respondents perceptions and attitudes are only measured using their responses. The scope of this research was fairly limited, so the findings might not be wide to be generalized but is a starting point towards understanding consumers intentions, attitudes and behaviours towards food wastage.

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9. Appendices

9.1 Appendix A Explanatory Information Sheet and Consent Form for Participants

To whom it may concern,

My name is Penelope Tshilwane , I am a student at Vega. I am currently conducting research under the supervision of Ms M. Rametse. The research is about food waste behaviour in a South African Context. The objective of the study seeks to ascertain Tiger Brands' (chosen brand for purpose of case study) value in influencing consumer perceptions, behaviours, attitudes in the context of mitigating food wastage experiences. I hope that this research will enhance our understanding of food loss and food wastage in South Africa and the contributing behaviours from a consumer perspective.

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 because you fit the criteria of the household sample I am looking to engage with for my research, and that is of an individual who lives in a household of more than 3 people). If you decide to participate in this research, I would like to follow up with an email to answer any questions or concerns that you may have at the time and send you the questionnaire to be used.

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 interview 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 knowledge on food loss and wastage management. 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 purely 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 agree 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 interviews, but only my lecturer and I will have access to these recordings. Nobody else, including anybody at Vega 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.

I would like your permission to use your anonymous responses to as part of the report findings. The interview should take 30 minutes and will be conducted on your preferred method of call, example, Zoom, WhatsApp call or Microsoft teams. The call will be recorded and transcribed for further analysis. May I kindly request your consent to record the interview. Video recordings/audio recordings will not be shared with anyone, only the collective data extracted from all conducted interviews

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 Post-Graduated Diploma in Brand Contact Management. 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?

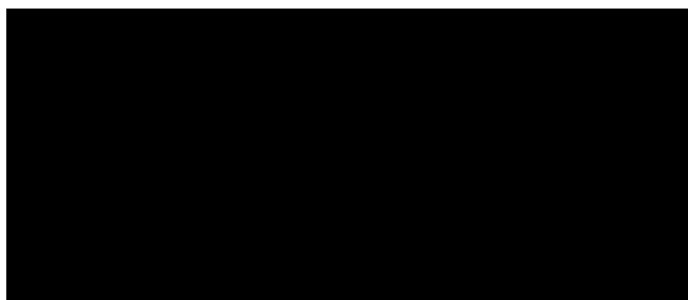
Please feel free to contact me or my lecturer should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate.

You should not agree to participate unless you are completely comfortable with the procedures followed. If you agree, kindly acknowledge your consent and permission for me to conduct the interview by signing below

(Name & Surname)

I.....(Date:.) offer consent to participate in the study

Signature:



9.2 Appendix B: Appendix B: Research Questionnaire

Research Questionnaire: Completion time: 30 minutes

1. What is your combined household budget, for food? And how many people do you live with?
2. What does your staple diet look like? from your shopping list or pantry.
3. Have you heard about Tiger Brands? If Yes, what do you know about them?
4. From the list you've mentioned, can you tell which products are from Tiger Brands? (Look for the label on packaging)
5. What are your opinions on food wastage?(Which statement describe your food wastage behaviour): a. I feel very bad when food is wasted. b. I was raised to believe that food should not be wasted at all. c. I think food should not be wasted, however, at times it's out of my control. d. Throwing and wasting food doesn't bother me at all.
6. In your opinion, what do you consider to be food wastage?
7. How many times do you go shopping in a month?
8. From your shopping basket, what do you buy the most? For example; fresh produce, meats, longer-shelf life items like maize.
9. Did someone educate you on food wastage? For example; a friend encouraging you to check expiry date before and post purchase?
10. Looking at least 3 edible products from Tiger brands, do you think the expiry dates are visible and easy to read? (Similar to recycling symbol on the packaging?)
11 Which statement best suits your current food management influence and elaborate? a. My community, friends and family think that my efforts towards reducing food waste is important b. I give left-over food to those in need and my friends see that. c. My family and community encourage me not to waste food. d. My friends and family don't waste food, so I follow them as an example
12. Do you think that Tiger Brands communicates the importance of reducing food wastage? If yes, what interventions have you seen? Or No, what would you like to see them do?
13. Which statement best suits your current food management style? a. I find it difficult to store food, to cook sufficient food for household consumption. b. I need to be reminded not to waste food or manage it correctly. c. Everyone in the household have their own dietary requirements, each person prepares their own meal. d. I forget to check the expiry date on food items.
14. At the top of mind, what percentage of waste would you consider spoiled food, cooked food, fresh produce, grains, maize, oats, cereals or non-edible, other?
15. What are the steps you want to take in efforts to reduce food wastage?

9.3 Appendix C: Research Clearance Report



27 August 2020

Student name: Penelope Lethabo Tshilwane

[REDACTED]
Campus: Vega bureaux

Re: Approval of Postgraduate Diploma in Brand Context Management Proposal and Ethics Clearance

PGDIP ETHICAL CLEARANCE LETTER

Your research proposal and the ethical implications of your proposed research topic were reviewed by your supervisor and the campus research panel, a subcommittee of The Independent Institute of Education's Research and Postgraduate Studies Committee.

Your research proposal posed no significant ethical concerns and your supporting documents and instruments are in order to proceed. We hereby provide you with permission to proceed with your research.

In the event of you deciding to change your research methodology in any way, kindly consult your supervisor to ensure all ethical considerations are adhered to and pose no risk to any participant or party involved. A revised ethical clearance letter will be issued.

We wish you all the best with your research!

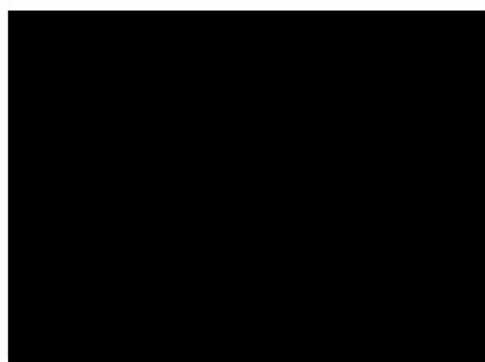
GENERAL CONDITIONS TO BE FULFILLED IN RELATION TO RESEARCH

Permission is granted to proceed with the above study subject to the conditions listed below being met and may be withdrawn should any of these conditions be flouted.

Please note: The panel has not considered the merits, accuracy or ethical soundness of the research. The only merits examined are the use of The IIE as a sample.

Permission is granted subject to the following conditions:

1. The researcher(s) will need to obtain informed consent in writing from all of the participants in his/ her sample if the study is not anonymous.
2. The researcher(s) may only use the data collected for research purposes and in no other way.
3. Photographs of human subjects may only be taken if relevant to the research, informed consent was obtained, and even with informed consent, the photographs may not be published on any online platforms.
4. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
5. No names or identifying information of participants may be used within the research and the research must be voluntary.
6. Please make it clear that the information will not be used punitively in any way and participants may in no way be counselled/advised based on this.



9.4 Appendix D: Qualitative Data Transcription

Please refer to "Appendix D: Qualitative Data Transcription" submitted on SafeAssign"