



An explorative study on meaningful brand strategies to curb food waste – a Food Lover’s Market case study

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ABSTRACT

Consumers waste a lot of food bought on special and are used to high quality standards on products that retail stores uphold. This study explores more meaningful brand practices that Food Lover's Market can utilise in order to reduce food waste in store and this resulting in consumers reducing food waste at home too. This exploration was done through a mixed method study using content analysis of discussions on Facebook and Twitter posts, and a survey. The main aim of the research was to evaluate people's thoughts about the brand, people's thoughts about fresh produce, to investigate the quality standards that retail stores uphold and understand how effecting certain changes could possibly make crooked shaped produce "cool" to reduce food waste and look at other strategies Food Lover's Market can adapt to be more meaningful as promotions such as buy one get one free have been shunned upon as contributors to food waste.

The study made reference to secondary sources to support the phenomenon that there are other meaningful practices that other brands are doing globally to reduce food waste. Furthermore, that consumers waste a lot of food because they bought it on special and that retail stores have high quality standards allowing them to throw away fresh food because of shape. This study took a coding analysis approach for the content analysis from Twitter and Facebook and took the Miles and Huberman approach to analyse the content from the survey. All the data collected was then coded into themes addressing the research objectives.

The first data set was collected through a survey completed by a total of fifty-two participants over five days. The second data set was collected through online searching of discussions on social media about Food Waste and Food Lover's Market. This information was interpreted qualitatively and quantitatively to achieve triangulation and validity.

This study formulated recommendations for Food Lover's Market and other retail brands to utilise in order to reduce food waste by not letting fresh food go to waste simply because of shape. Furthermore, it recommended the need to ease consumers into the idea of community sharing as consumers waste a lot of food as a result of not having anyone to share the food with. Lastly, it formulated recommendations about brand communication to consumers regarding the life span of products as a more meaningful brand practice.

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1. INTRODUCTION

Food Lover's Market is in the retail space and best known for selling fresh produce which studies have shown that it is food that perishes very quickly. Centers for Disease, Control and Prevention (2020), highlight that fresh food spoils very quickly, and this can even occur overnight. Food Lover's Market, however, has been found to be playing a huge role in feeding the hungry through initiatives such as the partnering with non-profit organisations that are within a 10km radius of any of their stores to provide fresh food to the poor (Food Lovers Market, 2019). Furthermore, they have shown commitment to certain initiatives that involve caring for the environment, such as their commitment to reducing the use of plastic in their stores by allowing customers to shop with their own containers when purchasing certain foods (Food Lover's Market, 2019). Another initiative investigated is their investment in plant-based milk which was found to be better for the planet and animals as it uses less water (Food Lover's Market, 2019). They also purchase their fresh produce from the markets making them a business that works directly with local farmers (Food Lover's Market, 2019) (Bizcommunity, 2017); however, a lot of food still gets wasted.

1.1 Background

The Food Lover's Market brand has also been found to be well known for its promotions, a practice that has been shunned upon as a huge contributor to food waste by consumers (Weber, Herrlein and Hodge, 2011). Food Lover's Market has weekly specials mostly on their fresh produce (Latest Specials, 2022). Research has shown that consumers with access to food, waste a lot of food that was bought on promotion (Ramukwatho, du Plessis and Oelofse, 2017). In addition, Schneider and Eriksson (2020) highlight that retail stores reject fresh produce onsite, and as stipulated by Food Lovers Market (2019), it is at the discretion of the store manager that fresh food is donated to nonprofit organisations in the vicinity of the store. This leaves room for rejected food to be discarded. According to World Wildlife Fund (2017), wasted food affects the environment and is harmful to the environment through the gases it emits. Wasting food is also taking more from the environment and misusing its resources, a practice that meaningful brands are supposed to shy away from (Cook, Carmody and Enslin, 2010). Therefore, it

has been noted that there is still a lot of room for the brand to be more meaningful and utilize better food waste management practices.

1.2 The purpose the study

Kuada (2012) states that with the aim of the study, a researcher denotes what the reader should expect from the body of work and sets the boundaries as to what should be expected and what will be included. du Plooy-Cilliers, Davis and Bezuidenhout (2014) state that the aim of the research is to set the goals that need to be achieved. This study ought to explore the reasons why consumers buy too much food when they already know their consumption patterns. Furthermore, it aimed to explore other promotion options that Food Lover's Market can run that will have a positive impact in the reduction of food waste by consumers. Lastly, it aimed to explore ways in the South African context, in which the brand can have more meaningful practices.

This research study was explorative as explorative studies allow the researcher to discover something new or interesting when working through a research topic (Swedberg, 2020). Furthermore, an explorative study, is also known as "the soul of good research" (Swedberg, 2020). Stebbins (2011) argues that an explorative study produces valid and insightful findings. du Plooy-Cilliers et al (2014) assert that explorative studies allow the researcher to identify new stakeholders, prioritize social needs and confirm certain assumptions. Social needs are very key in the critical realism approach. In branding, explorative studies draw from brand management theories according to Kleber and Juusola (2021) or are supported by concepts of branding and brand strategies as explained by Stride and Lee (2021). As this study was about the meaningful strategies Food Lover's Market can use to curb food waste management as per the research title, the concept of meaningful brands was a key theory.

1.3 Rationale of the study

This mixed method study addressed food waste management in the retail sector, specifically looking at Food Lover's Market and their practices. A parallel/simultaneous method design was used, with this design, qualitative and

quantitative data were collected simultaneously (Creswell,1995). Kriukow (2019) asserts that the simultaneous design method is used when the researcher has limited time to collect data. Taking the Critical Realism approach which reviews social matters looking at social status and its impact on people's stance and interpretation (Egbo, 2005) in this case, this study took this approach with regards to food waste. The qualitative data was used to test the Theory of planned behaviour to get an understanding of the intention behind food waste by the consumers as the theory postulates that people's attitudes are based on the information they receive (Conner and Norman, 2005). The quantitative data was used to corroborate the already existing data and give figures to the evidence.

The reason behind the use of the mixed method research was to achieve triangulation. Mixed method research illustrates depth, measures reliability and viability (Tashakkorri and Creswell, 1995). Furthermore, the mixed method research allows the researcher to gather trend data and the perspectives of people (Creswell, 2013). McGarth (1982) stipulates that all studies are flawed but it is the corroborating of evidence through the use of varying methods that allows for triangulation to be achieved. The sampling approach that was used in this mixed method research was non-probability sampling mainly because it is a cost effective and convenient method (Sarstedt, Bengart, Shaltoni and Lehman, 2018). du Plooy-Cilliers et al (2014) elaborate that non-probability sampling is used mainly when it is difficult to gain access to the entire population. The study used convenience sampling particularly with the questionnaire to collect data from the people already known to the researcher and the ones that the researcher had access to (Scholtz, 2020).

1.4 Problem statement

Food waste management is a global crisis that occurs throughout the entire supply chain process from the production right up to the consumption phase (Luo, Olsen and Liu, 2021). 33% of the food that is produced in the world either gets wasted or lost (Singh and Singh, 2019) and 1.3 billion tons of the food that is lost is food that can be consumed (Zmienka, 2020). According to Kor, Prabhu and Esposito (2017) retail stores reject crooked or even marginally imperfect looking food especially fresh produce due to the influence on high quality standards. Jidlo (s.a)

argues that marketing could also be influencing aesthetic requirements of perfect looking food by consumers. Schneider and Eriksson (2020) postulate that the food is rejected on site as returning it to the supplier will be costly. Consumers with access to food also contribute to food waste. Food is grown using resources such as water which is a scarce commodity in some parts of the world. The World Wildlife Fund (2017) asserts that the wastage of food results in the wastage of water, some of the wasted food also ends up in landfill sites where it rots and emits greenhouse gas that is very harmful to the environment. Also, the amount of food produced on earth can actually feed one and a half more people than the number on earth (Zmienka, 2020), yet over 814 million people on earth still go to bed hungry (Hlophe-Ginindza, Mpandeli and Nhamo, 2021). According to Derbyshire County Council (2022), 17 million tons of carbon dioxide could be saved if food was not being thrown away. Around 61% of consumers throw away cooked food and around 70% do not plan their meals resulting in food waste according to studies done by Ramukhwato et al (2017) and (Cronje, van der Merwe and Muller 2018). As reported by The Food waste footprint project (2018) food waste impacts water resources plus land, and the emissions affect the atmosphere. Therefore, the purpose of this study was to gain an in-depth understanding of how Food Lover's Market can be more meaningful in their practices, with reference to the quality standards retail stores apply and how they contribute to food waste; and how they can package their promotions better in an attempt reduce food waste. According to Havas Group (2021), consumers are looking for brands that offer more meaningful experiences such as offering constant engagement with content which they can do with their devices at home. Furthermore, consumers are looking for brands that take a stand (Havas, 2021) and Food Lover's Market needs to look into such.

2. RESEARCH GOAL AND QUESTIONS

Outlined in The IIE (2022), the study to be undertaken had to address the following objectives – the impact the brand has on food waste management; the extent to which the chosen brand can be described as meaningful in the context of food waste management; and how consumers use food from the brand and dispose it. Based on the above objectives, the below research questions were the basis of this study:

Research Question: Does the social status of consumers influence the amount of food they buy for their households and end up throwing away?

Objective: To understand the factors influencing consumers to throw away food despite knowing their consumption patterns and needs

Research Question: Can Food Lover's Market make a positive impact in the reduction of food waste in households by utilising better practices?

Objective: To assess other better brand practices that Food Lover's Market can use that promote sustainability

Research Question: Can South African retailers adjust their quality standards on the appearance of fresh produce to change perceptions and contribute to the reduction of food waste?

Objective: To determine to what extent consumers could be willing to buy and accept crooked shaped food

du Plooy-Cilliers et al (2014) explain that it is important to turn research questions into objectives as this give guidance to the researcher as to whether the questions are answerable and whether there are resources to do so. Collins (2018) also stipulates that having objectives to the research questions allows the researcher to judge whether the question will attain the necessary depth needed in order to have a research paper that is packed with substance. It is for these reasons that the researcher paired every research question with an objective for this study.

3. LITERATURE REVIEW

Over 814 million people in developing countries are undernourished (Hlophe-Ginindza, Mpandeli and Nhamo, 2021), yet the amount of food produced could feed one and a half more people than the current population living on earth (Zmienka, 2020). The United Nations Environment Programme (2021) added that if one quarter of the food that is currently wasted was to be saved, it would feed at least 800 million hungry people. According to Singh and Singh (2019), a total of 33% of the food produced in the world is either wasted or lost. This makes it about a total of 1.3 billion tons of food that gets wasted (Zmienka, 2020). The Wildlife Fund (2017) further expounds that the 1.3 billion tons of food lost is the food immediately available for human consumption whilst a further 1.6 billion tons of primary product equivalents, which is food that still needs to be processed. Therefore, food is wasted or lost in various forms, even if the food can potentially still be processed. Food waste can be defined as the loss of food at the end of the supply chain process, that is at the distribution and consumption stages (Jere, Parker, Jones and Mason, 2021). Food loss on the other hand is food that is lost in the early stages of the supply chain process, that is during production, harvesting and handling (Jere et al, 2021).

The Wildlife Fund (2017) postulates that in South Africa, a third of the food is thrown away and does not even get to be consumed. This shows that food waste even in developing countries is a huge societal problem which could potentially be linked to attitudes and there is a need to look at consumer behaviour. In developed countries, food waste is mainly attributed to inadequacies in the supply chain system whilst in less developed countries it is attributed to the lack of infrastructure, cooling and storage facilities and inadequate packaging and processing (Singh and Singh, 2019). Furthermore, Singh and Singh (2019) postulate that in developed countries there is a huge focus on improving consumer behavior. The United Nations Environment (2021) however argues that in developed countries, consumers play a much bigger role in food waste. Rovshen, Kim and Lee (2019) tally with this notion and indicate that 40% of the waste is through consumers and this is attributed to their behavior and attitudes. This suggest that consumer behaviour is a key contributor to waste despite the issues experienced in the supply chain system.

According to Zmienka (2020) a lot of food waste occurs as a result of pest infections. Luo, Oslen and Liu (2021) explain food loss at production stage occurring as a result of damages caused by nature such as insects and weather, operational mistakes and inadequate production techniques. In South Africa, 34.3% of food wasted is in local production and 45.4 % is of production plus imports (Oelofse et al, 2021). Food waste then occurs at post-harvest handling and storage stages as a result of poor infrastructure and improper packaging for transportation (Luo, Oslen and Liu, 2021). During the processing stage some foods are rejected because of food standard regulations, they too are wasted foods, and some due to contamination (Luo, Oslen and Liu, 2021). At the distribution and market stage, food is wasted as some expire before they even get to the stores, this could be as a result of a lack of cooling facilities in transportation, some due to appearance and size (Luo, Oslen and Liu, 2021). In South Africa, 6% of food is wasted at the distribution stage (Oelofse et al, 2021). Lastly at the consumption stage, food gets wasted as a result of issues such as consumers being confused by "use-by and sell by" dates (Luo, Oslen and Liu, 2021). According to Weber, Sarah and Hodge (2011), consumers think that food should not be consumed after the expiry date has been reached and are confused by "best before" and "use by". A lot of work needs to go into consumer awareness as some of the behavior shows to be as a result of a lack of knowledge or confusion. This even resulted in a lobby group in the United Kingdom requesting that food packaging should state "use by" instead of other confusing statements (Sarah and Hodge, 2011).

Furthermore, Oelofse et al (2021) highlight that fruit and vegetables are the second most wasted food in South Africa after cereals. Kliaugate and Kruopiene (2018) also found that fruit and vegetables dominate food waste in the retail sector. This can be concluded as a result of their perishable nature and standards placed on them.

3.1 Consumer behavior and consumption

With the objective of understanding what perpetuates the behaviour of consumers, the theory of planned behavior by Icek Ajzen was used as a theoretical framework. The theory of planned behavior asserts that people develop attitudes after receiving and carefully processing information (Conner and Norman, 2005).

This theory is an extension of the theory of reasoned action, which concerned the understanding of the motivators behind people's will to act (Ajzen, 1991)(Madden, Ellen and Ajzen, 1992). The theory of planned behaviour has however been criticized for its limitations and peculiarly the inability to address the behavior of individuals who fail to act upon their intentions (Sniehotta, Pesseau, and Araújo-Soares, 2014). However, for the purpose for the purpose of this study, the intention was to address people and brands that actually act on their intentions and therefore the theory applied very well. Furthermore, despite the above-mentioned limitations, the theory has been found to be useful in view of the fact that it can be applied in any scenario where there is a need to understand behaviour in order to implement interventions and a vast pool of useful information can be derived from the tool approach (Ajzen, 1991). Roberts-Lombard and Parumasur (2017) define consumer behavior as how individuals make their buying decisions, from the selection process, to how they use and even discard products and their overall experiences (Roberts-Lombard and Parumasur, 2017). Piras (2021) propounds that peer-to-peer discussions are a major contribution to food waste as peers influence each other's buying decisions. In addition, status also plays a role in food waste as consumers buy food in abundance with the aim of maintaining a certain social status that influences their buying decisions (Piras, 2021).

Household food waste has gained momentum politically and in research studies (European Commission, cited in Narvanen, Mesiranta, Sutinen and Mattila, 2018). 18% of food is wasted at consumption stage in South Africa (Oelofse et al, 2021). Demographics such as the level of education, gender and behavioral patterns have been found to influence food waste behavior (Narvanen et al, 2018). Evans (2018) advocates that consumers are actually not careless about wasting food and therefore to address food waste at household level, consumer skills in food handling, food provisioning and making tradeoffs should be investigated as more than just motivation is needed to curb this. This is why the critical realist approach is also vital as it is about empowering the consumer, if there is a lack of skills in their handling, there is definitely a need for them to be empowered in that aspect.

In a research study done regarding the South African consumer and food waste, the major cause of food waste in households that was found was that consumers buy a lot of food because it is on special and some of this food would go to waste

(Ramukhwatho, du Plesis and Oelofse, 2017). In the City of Tshwane, 26% of wasted food is food bought on special (Ramukhwatho et al, 2017). In another study done in Kimberely, 70 % of households did not plan their meals, or they planned them and did not adhere to the plans, when actually planning their shopping around meals would reduce wasting (Cronje, van der Merwe and Muller 2018). In their study in the City of Tshwane, Cronje, Van der Merwe and Muller (2018) found that 61% of consumers discarded their left-over cooked food, Ramukhwatho et al (2017) also found that consumers in Tshwane discarded the left-over cooked food as a result of preparing too much food. These consumers also wasted food as a result of buying promotions (Ramukhwatho et al, 2017). In another study done in Mamelodi, a township in Pretoria South Africa, it was found that income has an impact on the amount of food wasted in households (Ramukhwatho, du Plesis and Oelofse, 2014). Single person households were found to waste less food as their shopping quantities were way less, households that earn less than R5000 a month wasted more food than higher income households as they lived for the moment (Ramukhwatho et al, 2014).

On the other hand, in the United Kingdom, traditional promotions such as buy one and get one free have been shunned upon as a contributor to food waste management (Webber, Sarah and Hodge, 2011). In addition, Ramukhwatho et al (2014) have also found that buy one get one free promotions do not save people money but waste people's money. This will be discussed further under the need to be more meaningful.

3.2 Food wastage in retail

Retail stores are the link between producers and consumers therefore making food waste in retail stores a key component in combating food waste (Eriksson, 2012). In supermarkets, up to 7% of food was found to be wasted because of poor food management practices and the need to cater to consumers that demand a full range of products to be available (Weber, Sarah and Hodge, 2011). In their studies, Mau, Schramm-Klein, Schuhen, Askari and Steinmann (2020) found that when consumers are shopping and find that there are food items out of stock, it reduces their buying intentions. Furthermore, it was found that items being out of stock worsens the consumers emotions during their shopping (Mau et al, 2020).

According to the United Nations Environment Programme (2021) a lot of food in the retail environment is wasted due to the different quality standards applied that put emphasis on the appearance of foods. In addition, Oelofse et al (2021) reiterate that in South large supermarkets dominate the modern supply chain of food and they are the ones that have standards on the appearance and size of foods.

Dhlomo (2021) highlights that some of the causes of food waste in supermarkets are labelling, shelf life, handling of the food and promotions. Kor et al (2017) stipulate that product labelling especially best by dates cause unnecessary confusion resulting in consumers discarding food that is still edible. Consumers also damage products when handling them in store when trying to make their purchase decisions (Jere et al, 2021). Kor et al (2017) further asserts that best by dates are set by manufacturers to ensure that food is consumed at the peak of its freshness but this is not regulated, therefore retailers have the power to urge manufacturers to drop the best by concept. Kliaugaitė and Kruopienė (2018) found that consumers are the cause of shelf life being a contributor to food waste as they reject food with a short life span. Furthermore, Aschemann-Witzel (2021) found that packaging protects food from damage, contamination and increases the shelf life of foods. Hence, retail stores need not try and please consumers and be swayed by their dislike of packaging but rather teach them about the importance of it (Aschemann-Witzel, 2021). However, packaging such as pallets contribute to the most waste as bulk stacking results in some food items getting spoilt (Jere et al, 2021).

Retail stores are also faced with issues regarding how they shelve the food in store. Petljak (2021) highlights that if shelves are overcrowded, especially those carrying fruit and vegetable, the ones placed at the bottom are likely to get damaged and this results in waste. In addition, Kliaugaitė and Kruopienė (2018) suggest that the cause of food waste in retail is due to two things, consumer behavior due to their demands and shop owner's priority to sell. Petljak (2021) highlights that retailers are ordering more than they should and are also looking out for their reputation by having more than enough and selling only perfect looking food. On the one hand, retail stores constantly have to ensure that they please the consumer. On the other hand, Jere et al (2021) explain that a wide range of products is a contributor to food waste at retail stores. The phrase "the

customer is right” has been viewed as very misleading and that customers can be wrong, and it is not possible to please everyone (Arora, 2019).

Aschemann-Witzel (2021) asserts that retail stores are the interface between consumers and suppliers. Retail stores have this common practice of selling food items that are nearing expiry date at reduced prices. Aschemann-Witzel (2021) suggests that the practice of decreasing the price of foods when the food are close to expiry is a good one. Most retail stores in South Africa have been found to reduce food waste by donating to charity or making ready to eat meals (Jere et al, 2021). Some South African retailers are reported to sell their surplus food to Foodez which then sells the food at discounted prices (Rivett-Carnac and von Bormann, 2018 cited in Jere et al, 2021).

Aschemann-Witzel (2021) suggests that if consumers pay for the item of food based on its weight, then they would not buy the bigger food item, they would buy the size they need as price will be a factor. This also allows retail stores to then sell varying sizes of food items. Also, systems such as donating the imperfect looking food to the Food bank or these foods not being available at high end stores classifies people, these foods should all be sold at the same place (Mau et al, 2020).

Jere et al (2021) further expound that retailers remove best by and sell by dates for brand reputation management. Furthermore, consumers choose products that have the furthest expiry date when purchasing food (Jere et al, 2021). This leaves the food that is about to expire in the forefront.

Singh and Singh (2019) define food waste as an ethical problem. According to the Food Ethics Council (2022), food waste is deeply unethical and is a miscarriage of justice to the planet that has natured the tons of food that gets wasted. Furthermore, wasted food is an indicator of the amount of destruction we are causing the planet (Food Ethics Council, 2022). The Food waste footprint project (2018) asserts that food waste has an impact on natural resources such as water, land and biodiversity and that the emissions from the food that has been wasted further impacts the atmosphere. Eriksson (2012) asserts that retail stores have the power to communicate to consumers to increase environment awareness as they are the link between producers and consumers. Kor et al (2017) highlight that retailers have considerable market power to make changes, especially if they

account for the highest percentage in the grocery market. Battersby (2017) postulates that supermarkets in South Africa account for 75% of all grocery sales.

3.3 The need to be more meaningful

One of the key criteria of a healthy brand as described by Cook, Erwin, Carmody, and Enslin (2010) is that a healthy brand takes care of the planet. Moreover, consumers are also wiser and buy brands based on the ethical behavior of that brand or company, this is what we call ethical consumption (Tolentino, Filho, La Falce and Santos, 2021). Keller describes this in his brand equity model, where he explains that consumers will purchase a brand based on their own judgements and their feelings towards the brand (Keller, 2001). Accordingly, strong brands have a proper identity, have created a proper brand meaning, elicit positive responses to their brand and create a great relationship with consumers (Keller, 2001).

In the United Kingdom for example, Sainsbury, a retail store runs a programme where food waste is converted into electricity, powering about 500 homes (Weber, Sarah and Hodge, 2011). Hanks (2021) explains that meaningful brands are relevant in what is happening in people's lives and are there to improve lives. The very same store also has a buy one get one later promotion instead of buy one get one free which is a contributor to waste, consumers are then able to claim their freebie during their next shopping (Weber, Sarah and Hodge, 2011). Meaningful brands are also not driven by the need to just make profit (Cook et al, 2010). According to Dhlomo (2021) France has a legislation mitigating food waste where stores bigger than 400m² are banned from discarding edible food and have had to sign agreements with charities to receive the food. Beardsley (2018) reports that supermarkets in France that disregard this law can be fined around \$4500,00, additionally supermarkets "now seen as more than just a profit centre". It's a place where there has to be humanity".

3.3.1 Stores and Organisations selling or doing meaningful work with crooked produce

1. Kaufaland

Kaufland is a hypermarket in Germany that sells crooked shaped fruit and vegetables as "Something different" (Newsbeezer, 2021). This started off as a trial for a period of three months in more than two hundred and forty stores, there are two other supermarkets in the country who have done the same (Newsbeezer, 2021).

2. Zachran Jidlo

Zachran Jidlo (2016) the name of a team in Czech Republic meaning "save food" found that consumers lack knowledge about the process of producing food and if they were empowered, they would accept different shapes of produce. Zachran Jidlo picks the crooked shaped produce and donates it to the Food bank (Zachran Jidlo (2016)

3. Imperfect Produce

Imperfect Produce is a home delivery service with a subscription fee selling crooked shaped produce at a discounted price. Retail stores did not want to partner with this organisation that is how the service was born (Kavilanz, 2019). Founded by two friends, Imperfect Produce sources the produce directly from farmers and sells it to consumers and they have over 200 000 subscribers in twenty-two cities (Kavilanz, 2019).

4. Hungry Harvest

Hungry Harvest was founded on the idea that every food that is grown and not spoilt deserves to be eaten (Chew, 2021). They operate on a delivery basis, delivering rejected fresh produce and the items are marked organic or conventional (Shoemaker, 2021).

5. Misfits Markets

Misfits Market is another institution selling crooked shaped produce to consumers, it started off with a subscription service, much like Imperfect Produce, but has now expounded to selling to outside subscription (Shoemaker, 2022). Misfits Market is convenient as they deliver to your doorstep, they are affordable, and for those consumers who believe in ethical and sustainable consumption (Chen, 2022).

6. Preserve Farm Kitchens

Preserve farm kitchens preserves all the rejected produce and creates preserves and cooking sauces to sell to consumers (Krososky, 2021). They take these excess produce from local farmers creating an additional income for them, furthermore, the brand has also positioned itself as a brand reducing food waste through their packaging as well (Truly Creative, 2021).



Figure 1: Truly Creative. 2021. *Preserve Farm Kitchens – brand positioning, package design.* (Truly Creative, 2021)

Khoi Capital (2021) highlights that there is an ugly produce industry in the United States where institutions like Imperfect Foods, Misfit Markets and Hungry Harvest are in the business of getting crooked shaped food to the people. Food Lover's Market as a brand that sources its produce directly from farmers already has the network of farmers therefore, they could possibly look at being open to selling crooked shaped produce.

Furthermore, Zachran Jidlo (2016) suggests that marketing could be the cause of the aesthetic requirements from consumers of perfect looking food. This suggests that marketing can be redirected and used effectively to get consumers to accept other forms of foods. In addition, A study by the European Commission in the United Kingdom has shown that if consumers are made aware that the crooked shaped food gets thrown away, they are willing to buy it at a discount (Bouwen, 2009). In 2009, the European Union scrapped a ban on crooked shaped fruit and vegetables where twenty-six types of produce would no longer have specific marketing standards related to shape, size and appearance (Stones, 2009).

Khoi Capital (2021) further highlights that in South Africa, crooked shaped produce is confined to townships while many middle-income earners in the country are under financial strain. The middle-class income earners in South Africa are faced with increasing fuel prices, increasing interest rates and increasing food prices (Business Tech, 2022). According to a study done by the University of South Africa, many of the middle class income earners have actually sacrificed their savings just to keep up with payments of their monthly expenses (Business Tech, 2022). Furthermore, in a study done by von Braun, Ahmed, Asenso-Okyere, Fan, Gulati, Hoddinott, Pandya-Lorch, Rosegrant, Ruel, Torero, van Rheenen and von Grebmer (2008), it was found that vulnerable people that managed to escape poverty in recent years would not be able to cope with the rising food costs and end up falling back to poverty. This shows that selling crooked shaped produce is not only ethical but the discounted rates that have been used by the abovementioned institutions could also assist the financially strained consumers to continue maintaining a good diet.

3.4 The use of Technology to curb food waste

There are several applications “apps” that have been reviewed as playing a significant role in reducing food waste. Havas Group (2021) explains that meaningful brands have functional benefits and those benefits should be technology driven, must create an easy journey and it requires brands to be proactive. Below are the researcher’s findings about some of the applications:

1. Too Good to go

An application that allows consumers to buy unsold food at reduced prices from cafes, retail stores and restaurants (World Economic Forum, 2022). Chokkattu (2022) elaborates that with Too Good to go, stores do not have to list exactly what consumers will be getting thus saving them time and money. Furthermore, people pick up the food themselves and store owners can sign up on the application and get into business within thirty minutes (Chokkattu (2022)).

2. Te Keya

An application in Egypt where restaurants, cafes and retails stores can sell their surplus food to consumers at a 50% discount (World Economic Forum,

2022). Maged (2019) explains that the idea behind the application was to connect food stores with the less privileged by selling surplus food to them at a discounted price instead of them going to the bin. Individuals can also use this app to sell their own surplus food (Maged, 2019).

3. Olio

Olio is another application that lets neighbours share food for free (World Economic Forum, 2022). Olio app is currently utilised in forty-nine countries across the world (Singh, 2021) (Hicks, 2022).

4. Cozzo

A Bulgarian based application, Cozzo is a kitchen management application that allows users to create shopping lists and assists them in tracking expiry dates and managing refrigerator inventories (Varela, 2021). Cozzo app allows users to have a system that gives them an overview of the grocery they need (AppAdvice, 2022).

5. Eroo Go

A United Arab Emirates application that allows retail stores to sell fresh grocery that is about to expire at a discount, this includes delivery with a fee making drivers also earn something (Varela, 2021).

6. Seva Kitchen

Seva Kitchen, is an Indian based app that connects people who want to donate fresh, safe, home cooked meals to organisations in need of food. It is mostly targeted at large gatherings, festivals and parties (Varela, 2021).

7. Nosh

A United Kingdom based application that helps the user by tracking sell by and use by dates, and also monitoring the users shopping habits (Varela, 2021). The application tracks use by and expiry dates in real time and uses colour to code them (Nosh Technologies, 2021). This application can scan barcodes into the application so there is no need for the user to record the items individually (Silberling, 2021).

8. Yo No

A Spain based application that allows users to advertise raw or cooked food items and allows buyers to arrange pick up via private messaging with the seller (Varela, 2021). Serano (2016) describes Yo No as a food sharing system, it allows the user to take a picture of the food to show its condition

and the expiry date, and the goal of the application is to create a network for the community in the bid to curb food waste.

Too Good to go, Eroe Go and Te Keya reduce food waste at stores and as Havas Group (2022) stipulates, consumers want brands that they can interact with or get services from on their devices at home, therefore these applications are really creating those meaningful experiences. Olio, Yo No and to some extent Seva Kitchen help reduce food waste in households and offer a better way for people to share or exchange food rather than discarding it. These applications are truly community uplifting applications and benefit the collective. Nosh and Cozzo applications are there to assist the consumer in reducing food waste in their households by managing through communication and coding, the expiry dates of food in their kitchens and allowing them to keep track of their shopping and consuming habits so that they can plan their grocery shopping better. This shows that there are many meaningful practices that Food Lover's Market can adopt or even start and that there is still a lot of room for them to do so. The value drivers of today's consumers include social impact, consumers are willing to spend more on products where the social impact is understood, can be explained and shown (Matthijssen, 2018).

According to Bizcommunity (2017), Food Lover's Market had the first retail partnership with Uber Eats, a delivery app where consumers could order meal kits that came with fresh ingredients, recipes and cooking instructions. The idea of this partnership was to get consumers back in the kitchen cooking and reducing the intake of takeaways (Media Update, 2017). The kits are designed to feed four people in response to encouraging healthy eating and curbing obesity, this service currently runs in Cape Town only, with future plans to expand to the rest of South Africa (Retail Analysis, 2017). To date the service still runs in Cape Town, showing that the brand is slow in the uptake of technological services, something which consumers want from meaningful brands (Havas Group, 2021).

3.5 Using social media to spread meaningfulness

Young, Russell, Robinson and Barkemeyer (2016) postulate that when brands encourage consumers to be environmentally friendly, it may lead to strong brand loyalty. There are various ways and platforms in which consumers can be educated and encouraged about reducing food waste, in this paper we will look at the use of social media to spread awareness and reach a larger audience. According to the social influence theory, people's beliefs are an amalgamation of the beliefs of the people they surround themselves with (Carley, 2020). The social influence theory is a multi-level theory addressing both the micro and macro levels of influence.

Carley (2020) explicates that at the micro level, people weigh in, and process other people's opinions resulting in them combining them with their own. At the macro level, it is noted that social structures play a significant role in influencing people's opinions (Carley, 2020). There is a need to influence behaviour so that change can be achieved in food waste management. Friedkin (1990) explains that influence is most likely to happen at a face-to-face interaction. Young et al (2017) argue that social media discussions replicate face to face as they allow people to interact and respond to each other. Gupta (2021) explains that social media offers an interactive environment as compared to traditional media. Voorveld (2019) delineates that social media allows for the exchange of content. Moora (2012) describes it as a platform allowing for robust and ongoing conversations at no cost. With that said, social media can therefore be used by brands. With meaningful brands being brands that allow the participation of customers in order to create value (Carah, 2013) it makes social media a great tool to not only educate but to create meaningfulness for the brand. Furthermore, meaningful brands respond to people (Hanks, 2021).

Freeman, Potente, Rock and McIver (2015) emphasise that social media campaigns that make use of traditional media as well get a viral effect. Furthermore, they expound that social media campaigns on their own can also be good, if they are powerful they can get earnings from media outlets instead of paying for advertising (Freeman et al, 2015). Ketter and Avraham (2016) highlight that social media campaigns allow users to take an active role in the creation and distribution of campaign messages. In their studies, Narvanen et al (2018) found

that campaigns on the reduction of food waste should focus on social and cultural contexts and people's values, as well as everyday conditions in which food is consumed. Furthermore, they highlight that if campaigns focus on socio-cultural aspects of consumption it allows consumers to be active participants in the creation of meaning (Narvanen et al, 2018). Freeman et al (2015) suggest that social media campaigns spread so easily and super-fast as they can be shared from friend to friend through just a Facebook share button, or a retweet on Twitter for example. Social media campaigns can therefore be used to educate and get people talking.

4. RESEARCH PARADIGM

du Plooy-Cilliers, Davis and Bezuidenhout (2014) define a paradigm as a research tradition which categorizes beliefs, and these categories give direction to what kind of research method will be applied and how the data will be collected. Babbie (1988) elucidated a paradigm as a framework used for observing and understanding reality and is of the view that we have all been socialized into believing or falling into a certain paradigm. There are three main paradigms that have been indicated by studies, namely the Positivism, Interpretivism and Critical Realism (du Plooy-Cilliers et al, 2014). The names of the paradigms already give an idea of what they could be about which shows how indeed everyone could all be socialized into falling into a particular paradigm.

Guba and Lincoln (1985) suggested that there are three major approaches a researcher could take, those are ontology, epistemology and methodology. However, du Plooy-Cilliers et al (2014) proposed that there are five kinds of approaches per paradigm, additional to the three mentioned, a researcher could have an axiological and metatheoretical approach. West and Turner (2005) argued that values are an integral part of science, as they are entrenched in people's cultures and believes. Additionally, Lincoln, Lynham and Guba (2011, cited in Biedenbach and Jacobson, 2016) argued that a researcher's paper is filled with values making axiology an important topic. Zaltman, Christian, Pinson and Angelmar (1974) added that theories are an integral part of research as they provide explanation and help us predict and create control. Therefore, for the purpose of this study all five approaches were explored.

4.1 The Critical realism paradigm and the five approaches

This study undertook the Critical Realism paradigm which is defined as the view that reality is socially structured and is constantly changing (Hoddy, 2019). Fletcher (2017) explained that from the critical realism view, the reality known by human beings is only but a small part of a much bigger reality. Egbo (2005) argued that critical realism goes deep into social matters, revealing how social status has a huge impact in interpretation. Egbo further emphasized that critical realism is very relevant as we are currently in globalization which is causing rapid changes and this paradigm understands the concept of change (Egbo, 2005). This

makes it clear why the critical realism paradigm had to come about as changes affect what is known as reality, this means reality will not stay the same.

Haigh and Witchel (2020) defined ontology as a study of how we get to know what reality is and what it is not. This suggested that there is reality and what is perceived as reality. du Plooy-Cilliers et al (2014) also ascribed ontology to being the study of reality. Babbie (1998) elaborated that in ontology, every part has a role to play in order to contribute to the whole hence it is "the study of being". Critical Realists ontological view is that the real world is made up of different elements that have the adverse effects on how people act (Haigh and Witchel, 2020). Critical Realists explain ontology as made up of people's assumptions, theories and values and therefore their interpretation will always change (Haigh and Witchel, 2020). As people change, grow and get exposed to even more spectrums, their outlook is bound to change, changing their reality, making critical realism a great approach. In addition, critical realists, are also of the view that various indoctrinations actually influence people's realities (du Plooy-Cilliers et al, 2014).

The methods a researcher uses to derive knowledge are the methodology (Haigh and Witchel, 2020). These could either be qualitative, quantitative or a mixture of both known as mixed method. Quantitative research presents data numerically and can be used for statistics (Neuman, 2003 and Sarantakos, 2005, cited in Antwi, 2015). According to studies by Antwi (2015), qualitative data contains so much more, whilst quantitative data is efficient, it can be criticized for missing a lot of detail. This suggests that the mixed method methodology is a combination of both methodologies, and the outcome can provide more value than using either or. Critical Realists believe that no single method can give holistic results and hence they use the mixed methodology of research (du Plooy-Cilliers et al, 2014). With the mixed method approach, the critical realist gets to have a holistic view of a phenomenon. The critical realist report can therefore contain a lot of substance versus using the Interpretivism or Positivism approach.

Epistemology is the study of how ideas and values influence the current knowledge and the knowledge a researcher still desires to gain (Haigh and Witchel, 2020). Therefore, there will not be only one way of getting to know reality, hence Kivunja and Kuyini (2017) defined epistemology as the ways we get to know reality. The

epistemological basis of research for Critical Realists is that reality can be interpreted through assumptions, theories and values (Haigh and Witchell). They are of the view that knowledge changes (Haigh and Witchell). In addition, critical realists believe that events are understood through social and economic context (Aliyu and Adamu, 2015). Therefore, people's stance in society will have an effect on how they understand things.

Axiology originates from two Greek roots, "axio" meaning worth and "logos" meaning logic (Biedenbach and Jacobsson, 2016). According to du Plooy-Cilliers et al (2014), it is based on people's values. Furthermore, axiology allows a researcher to look at and addresses ethical issues in their research paper (Kivunja and Kuyini, 2017). It is through understanding values that we will get to understand also what is important to people. In addition, values are found to be present throughout the researcher's underlying assumptions (Licoln, Lynham and Guba, 2011, cited in Biedenbach and Jacobson, 2016). Axiology of Critical Realists is that the basis of the research is to emancipate others (du Plooy-Cilliers et al, 2014). Critical realists believe that some values are objective (Muntaner and Dunn, 2020). Burrell and Morgan (1979, cited in Jaksic, Silic and Silic (s.l.), explain that a critical realist will understand the bias that exists based on their culture, experience and upbringing and are objective. Therefore, the critical realists' aim is to change the world, and this will be achieved through engaging with people to help them better understand their situations and be able to pinpoint any barriers and perhaps change their ways of thinking.

Lastly, metatheory is defined as the theories that a researcher subscribes to (du Plooy-Cilliers, et al). Lor (2017) describes metatheory as the assumptions held by the researcher that will affect the decision the researcher will take on what kind of research methodologies they should use. Abrams and Hog (2004) believe that metatheory takes the research questions and places them in a certain framework. Zaltman et al (1974) explain that in research we need valid theories to provide predictions and give the researcher confidence. Since the predictions are tried and tested one can even argue that they give credibility to the research paper. Metatheory of Critical Realists is that believes hold back people, including material possessions (du Plooy-Cilliers et al, 2014). In addition, du Plooy-Cilliers et al (2014) believe that people are limited by the world they live in. Hence the critical realists believes that theories need to emancipate and open the doors for change.

Also, Allana and Clark (2018) postulate that the critical theorist looks for underlying mechanisms behind events.

Because the critical realist research is about emancipating and using mixed methods of research, it looks at two sides of the coin. It is for this reason that this study took the critical reality approach as there is a need to change behavior regarding food waste. Critical realism uses elements that create new approaches to developing knowledge (Wynn and Williams, 2012). Furthermore, it gives more detailed research findings as it acknowledges independent structures and the subjective knowledge of social structures (Wynn and Williams, 2012). In addition, Critical realism allows for the triangulation of findings through the mixed method approach which utilizes various data collection methods (Allana and Clark, 2018).

According to Newman (2007) researchers need to understand that in order to build knowledge and have a meaningful contribution to the body of knowledge that is already out there, they must be willing to make use of mixed methodology. Creswell and Clark (2007) cited in Soiferman (2010) argued that one method alone cannot answer all questions that will arise in the course of the research hence to build a more comprehensive research paper, a mixed method approach is essential. Creswell (1995) further argued that mixed method research illustrates depth and has a high measure of reliability and viability. Kuada (2012) added that mixed method data collection enhances research as it allows the researcher to use pictures and rich narratives to add meaning to statistics. This study has utilized mixed methodology to indeed use the narrative to add meaning to the statistical data.

5. RESEARCH METHOD

5.1 Research Design

Research design is defined as a structure or plan describing the variables that will be studied and their relationship to one another (Spector, 1981). Martin and Hanington (2012) defined research design as the detailed outline of the steps that will be undertaken to conduct the research. Firstly, the parallel/simultaneous method design was used for the survey data collection method, with qualitative and quantitative data collected simultaneously (Creswell, 1995). In his findings, Kriukow (2019) suggested that if a researcher has a limited time to do their study, it is advisable to collect both the qualitative and quantitative data at the same time. Given the limited timeframe of this research, this justified the use of this particular design. Secondly the descriptive research design method was used for the content analysis data collection method. Dulock (1993) describes a descriptive research design as a design that allows the researcher to give a description of what exists and categorise that information. Nassaji (2015) expounds that a descriptive research design aims to describe a phenomenon and what attributes the phenomenon and allows the researcher to look at reoccurring themes and patterns.

5.2 Survey data collection

The survey was distributed electronically using Google forms to gather both the quantitative and qualitative data from a larger audience of fifty-two participants using a cross sectional design. du Plooy-Cilliers et al (2014) explains that surveys also have their own designs and the cross-sectional survey design is used to give an overview of the whole picture at one point in time. Furthermore, the cross-sectional survey design means collecting the data from the respondents only once (du Plooy-Cilliers et al, 2014). The cross-sectional survey was used in this study with data collected from the respondents just once.

In his study, Zohabri (2013) explains that there are three types of surveys, close ended, open ended and a mixture of both. Gilham (2000) elaborated that open ended questions could lead to a greater level of discovery. The survey used in this study was a mixture of both open ended and closed questions. Morse and Niehaus

(2016) express that a mixed method survey cannot have closed ended questions then have one open ended question then be referred to as a mixed method survey. The survey that was used in this study contained a sufficient number of both open ended and closed ended questions. Section A contained eight questions with four of them being open ended questions and the other four being closed ended questions. Section B contained nine questions with five open ended questions and four closed ended questions. Section C contained four questions with three closed ended questions and one open ended, lastly Section C was about the demographics.

Brown (1997) emphasises that a survey must specify what the objective is, hence the survey began with an opening statement, introducing the researcher and explaining the objective of the study to the participants. Section A included eight questions on consumers and their buying and storing habits, section B had nine questions on retail stores and crooked shaped fruit. A picture of crooked fruit was included to give a pictorial description while a written description was also given so that the respondents were clear as to what term crooked means. See below figure:

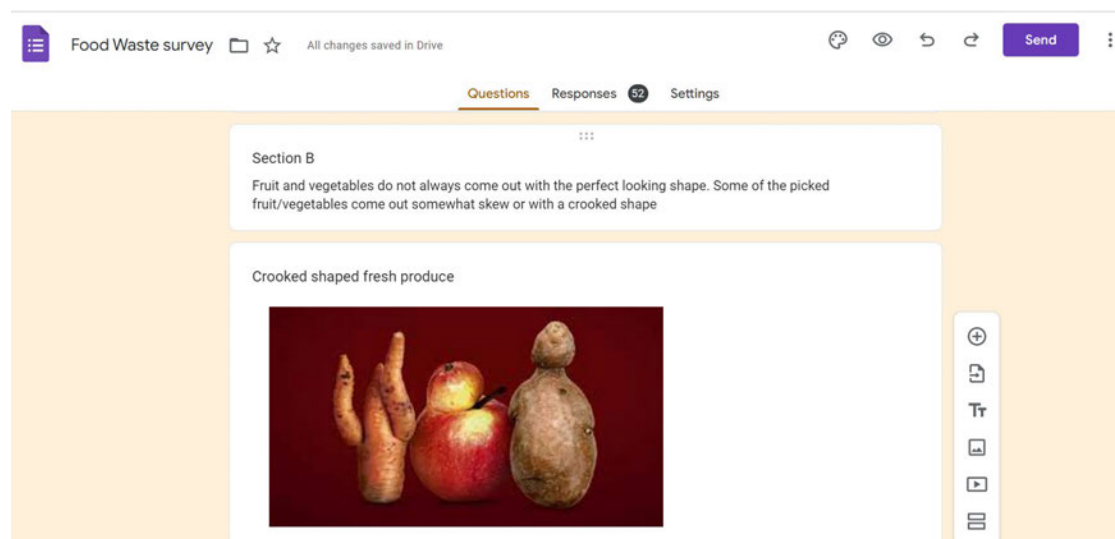


Figure 2: Kaufaland. 2019. *Crooked vegetables now nationwide at Kaufland*. (Newsbreezer, 2019)

Section C consisted of four questions regarding social media and campaigns, lastly Section D was about the biodata which Brown (1997) defines as biographical

information which in the survey covers age, gender and employment status. du Plooy-Cilliers et al (2014) highlighted the importance of demographic questions being put at the end as respondents would have already engaged with the subject and still carrying the momentum.

Surveys are described as cost efficient and very good for large scale data collection (Zohabri, 2013). Furthermore, they make allowance for the anonymity of respondents, allowing them to easily share information (Zohabri, 2013). The study managed to collect data from fifty-two respondents in a short space of time. In addition, Brown (1997) has described surveys as the most practical form of data collection and as very easy to do.

Once the survey reached a total of fifty-two respondents, the survey was closed and the Miles and Huberman method was used to analyse the qualitative data. As Google forms was utilised for the survey, the platform organises quantitative data into graphs and percentages which were then used to analyse the data. According to Brown (1997) closed ended questions can be analysed through averages or percentages and open ended questions can be read, analysed and sorted in some way. Using the Miles and Huberman for the qualitative data analysis, the first step was data reduction where the data was abstracted and simplified with a focus of what was the key, common and unique information that was coming out was. The second step was data display where the data was organised into themes. A total of three themes were derived. Lastly, the data was then concluded by conclusion, drawing and verification which was followed through taking a second look at the data that had been organised into themes, looking at what the data means and linking it to the literature.

5.3 Content analysis data collection

Content analysis was used as the second data collection method where data gathered from social media platforms, namely Facebook and Twitter conversations was analysed. A descriptive research design was used to collect the data. Content analysis has been defined as a research method used to analyse communication messages, which can be written, visual or even verbal messages (Frank, 1998). Luo (2019) has defined content analysis as a method that identifies patterns in recorded communication messages. In addition, Luo (2019) asserts that content

analysis could be used for both qualitative and quantitative research as it allows the researcher to count and measure, also to interpret and understand the communicated messages. In the context of this study, communication messages were analysed.

The first step was to use the main research objectives to select the relevant social media posts. The key objective here was: How Food Lover's Market can contribute to the reduction of food waste in households through utilising better practices as a brand. The second step was then selecting the conversations that spoke to the abovementioned objective. The third step was to place the data into one of the themes formed and categorising the information collected into codes. There was a total of three codes.

Content analysis is described as unobstructive allowing the researcher to collect the data without involving the person who created the information, therefore closing doors for the researcher to influence participants (Luo, 2019). Stemler (2000) asserts that content analysis is very useful in describing where societal attention is. Furthermore, it is useful for examining trends and patterns, and monitoring the shift in public opinion. Content analysis is also a flexible research method as the researcher can conduct it anywhere and anytime, if they have access (Luo, 2019).

6. ANALYSIS OF DATA AND FINDINGS

6.1 Introduction

This section will outline the research findings from the primary research conducted through content analysis of social media posts i.e Facebook and Twitter, between May and July 2022 and a survey which was opened for a period of a week. One twitter post was analysed and a discussion arising from five Facebook posts were critically analysed with regards to the topic and the interaction between the respondents using the descriptive design. Descriptive design allows the collection of rich descriptions and their settings (Groenewald, 2004). This was done to determine what consumers think of food waste with reference to Food Lover's Market and what better practices do they think the brand can utilise to help reduce food waste by consumers. The posts were chosen based on how relevant they were to the outlined research objectives of this paper. Factors that were considered were the comments specifically around the brand, the issues people were experiencing and what these meant to the people. The analysis approach for these posts was qualitative and coding was used to simplify the data.

Secondly, the questionnaire had a total of fifty two respondents and it used a parallel/simultaneous design where the data was collected both quantitatively and qualitatively at the same time. The questionnaire was done using google forms which has a feature that puts the quantitative data into graphs and percentages. That feature was used to derive the percentages that are presented in this report. The qualitative data was analysed using the Miles and Huberman method where the data was sorted, simplified, and organised. The data from both the questionnaire and content analysis was broken down into three themes.

The first theme related to consumer behaviour and what motivates their actions. The second theme related to retail stores mainly with regards to the sales of fresh produce and crooked shaped fresh produce. The last theme was in relation to social media.

6.2 Restating the Research objectives

This study aimed to explore whether the social status of consumers influence the amount of food they buy for their households and end up throwing away

This study aimed to investigate whether Food Lover's Market could make a positive impact in the reduction of food waste by consumers in their households through utilising better practices

Lastly the study aimed to investigate whether retail stores could adjust their quality standards on the appearance of fresh produce to change perceptions and contribute to the reduction of food waste

6.3 The research findings

Theme 1: Consumer behaviour

The first set of data was collected through a survey with a total of 52 respondents partaking in the survey. The data was collected both quantitatively and qualitatively. While the literature review had explored an application named Olio that is used in 49 countries (as at 26 April 2022), which is assisting with the reduction of food waste through allowing neighbours in a community to share food using that free app (Hicks, 2022). 53.8 % of the respondents were most unlikely to buy food from their neighbours and a further 15.4% were unlikely to buy food from their neighbours. This entails a huge majority of respondents who are sceptical about buying or getting food from their neighbours. They gave reasons such as: they do not eat the same food as them or that they prefer buying their own food. 19,2 % of the respondents were in the middle, while 5.8% of the participants were likely to buy and a further 5.8% were most likely to buy food from their neighbours. The respondents also felt that if they planned better or cooked smaller portions, this would reduce the food waste taking place in their homes. This correlates with research that meal planning is a huge contributor to food waste (Cronje, van der Merwe and Muller 2018).

Table 1: Reasons why consumers would buy or not buy food from their neighbours

How unlikely/likely they are to buy food from neighbours	Percentage of respondents %
Most unlikely to buy because food is sensitive, not comfortable, trust issues, health reasons	53.8%
Unlikely to buy because of hygiene curiosity, picky eaters, different food preferences	15.4%
In the middle as it is a foreign concept	19.2%
Likely to buy because they will save on petrol and visits to stores	5.8 %
Most likely to buy because it might be a bargain and have good relations with their neighbour	5.8%

These results and responses were in contrast with what the very same respondents had said in response to what could assist them in reducing food waste. Their responses had been that they would stop wasting food if they had someone to share with or give, or a place to donate. This suggests that even though the respondents were sceptical about getting food from their neighbours, they are looking to share their surplus food instead of throwing it away and they are looking for more impactful ways to do so.

To analyse the data that was collected from social media posts, Facebook and Twitter, the data was simplified in an orderly manner, coding was used, namely: Food waste is money waste; Team organic and budgeting.

Food waste is money waste

Consumers believe wasting food is wasting money, therefore buying fresh produce only for it to start rotting the following day is a waste of their money. They had

the discussion around fresh produce from Food Lover's Market specifically rotting quickly. The majority felt it is a waste of money and therefore their specials were also not worth with the food rotting quickly.

Team organic

While most of the participants felt that they do not want fresh produce that rots quickly, a few of them felt that this means that the produce is more organic and therefore good for consumption.

Budgeting

From Twitter, the data that was found was that people waste food because they have not been taught how to cook or budget. If those teachings were put into place it would reduce food waste. This correlates with the data that in order to address food waste at household level, consumer skills in food handling, food provisioning and making tradeoffs should be investigated (Evans,2018). Another finding was that social status plays a role in food waste which correlates with the data found in the literature review that social status also influences buying decisions (Piras, 2021).

Theme 2: Retail stores, fresh produce and crooked shape

Majority of the data in this theme was taken from the survey. The data was collected both quantitatively and qualitatively. 53.8% of the respondents said they would expect crooked shaped produced at high end stores if the global goal was to reduce food waste. 25% of the respondents said they would not expect it at a high-end store while 21.2% were unsure. 71.2% of the respondents believed that crooked shaped fresh produce should be sold in store at a discount while 1.9% felt that it should never be sold, 17.1% percent said it should be sold at normal sections.

Table 2: Where consumers would expect crooked shaped produce in a high end store if the global goal was to reduce food waste

Where to expect crooked shaped produce	Percentage of respondents %
Would expect crooked shaped produce in store at a discount	71.2%
Crooked shaped produce to be sold as normal produce	21.1 %
Crooked produce should be sold at the back end of the store	3.8%
Crooked food should not be sold in store but on platforms like apps	1.9%
Crooked shaped produce should never be sold	1.9%

The respondents also suggested that crooked shaped produce could be made cool to consumers by promoting it to them and getting them accustomed to the various possible shapes. Furthermore, they believed that consumers could be empowered on the main purpose of fresh produce being for nutrition and on why fruit and vegetables can take on other shapes. Lastly, they suggested that a word play on food having personality just like humans and therefore fruit and vegetables can be unique could be used to make crooked shaped food acceptable.

One of the biggest findings for this theme was a suggestion from a Facebook post, that Food Lover's Market specifically should have a sign stating "buy today, consume today" as their fruit and vegetables are organic. This answers the research objective of the better practices that Food Lovers Market can utilise in order to reduce food waste. Although they might not necessarily put signage that

states "buy today, consume today", but rather state the possible lifespan of the produce, whether it is two to three days or whether consumers should refrigerate, but also indicate that the produce is organic.

Theme 3: Social media

The data from this theme was collected entirely from the survey. It was collected both qualitatively and quantitatively. A total of 67.3% of the respondents said that they do not see any social media posts about reducing food waste, 11.5% were not certain of whether they had or had not seen them and 21.2% had seen social media posts about food waste. 46.2 % of the respondents claim that they have been influenced to do good by social media campaigns while 40.4% claim that they had never been influenced to do good by a social media campaign and 13.5 % were unsure. With regards to curbing food waste, respondents suggested that such campaigns should start at schools. The rest of the respondents suggested emotionally appealing campaigns, campaigns promoting shopping lists and the use of social media platforms such as Tik Tok Videos and Twitter posts.

7. ETHICAL CONSIDERATIONS, LIMITATIONS AND TRUSTWORTHINESS

7.1 Ethical considerations

Arifin (2018) defined ethical considerations as the protection of people's human rights and that participants need to be informed about what the research is about and they must have the power of choice to say whether or not they would like to be part of the study. Furthermore, Arifin (2018) asserts that ethical considerations, include anonymity and confidentiality, ethical approval and data protection. Ethical approval was obtained from the IIE to conduct primary research. Phenwan et al (2021) postulate that ethical approval is getting consent. Arifin (2018) emphasises that ethical approval needs to be obtained from the institution authorising the research.

According to Arifin (2018), anonymity and confidentiality can be achieved by not revealing the names and identity of participants. This study did not request names and identities of participants, but data such as age, gender and employment status. Furthermore, identities of those whose social media posts were used was not revealed, including their usernames or profile pictures. According to Sixsmith and Muray (2001) cited in Phenwan et al, (2021), there have been a lot of disagreements regarding content taken from social platforms such as tweets, while others feel that the content is already public, there is a general acknowledgement that the content creator's privacy should be preserved. Kosinski, Matz, Gosling, Stillwell (2015) explain that the availability of data on a social media platform does not give the researcher an automatic right to use the data freely. Kosinski et al (2015) argue that participant consent shouldn't be required on social media platforms such as Facebook or Twitter if it can be reasonably assumed that the data was made available freely by the poster, that the poster's is made anonymous and there shall be no attempts to reveal their identity; and no information that can be attributed to the individual is published.

According to Ketefian (2015), there are three central ethical principles, respect for persons; beneficence which is doing good to benefit the subjects of research; and justice which entails fairness in the line of questioning. The line of question in the surveys mostly about consumer thoughts on crooked shaped food, what they have seen on social media and thoughts on community sharing systems.

7.2 Reliability and validity

Joppe (2000) cited in Golfashani (2003) defined reliability as the extent to which results are consistent overtime and accurately represent the population studied. Drost (2011) defines reliability as the extent to which measurements are repeatable. Drost (2011) suggests that something can be reliable but not valid. In addition, Golfashani (2003) explains that there cannot be validity without reliability and that if reliability has been tested, that is sufficient to cover validity. Licoln and Guba (1985) cited in Merriam (1995) explain that in measuring reliability, one can strive to measure dependability or consistency as there are many interpretations, many perspectives and behavioural change, especially when it comes to qualitative data. Dependability is about whether the results are consistent with the data collected (Licoln and Guba, 1985 cited in Merriam, 1995).

Golfashani (2003) defined validity as the research actually measuring what it is meant to measure and not going astray. Drost (2011) interpreted validity as the meaningfulness of the concepts studied, allowing the research tool to indeed measure what the research intended to measure. This research study ought to measure firstly, whether the social status of consumers influence the amount of food they buy for their households and end up throwing away, secondly, whether Food Lover's Market could make a positive impact in the reduction of food waste by consumers in their households through utilising better practices and lastly whether retail stores could adjust their quality standards on the appearance of fresh produce to change perceptions and contribute to the reduction of food waste. The study indeed measured what it meant to measure and did not go astray. As explained by Zohabri (2013), validity is both internal and external. However, Lincoln and Guba denied the relevance of internal and external validity in qualitative research and suggested the term "trustworthiness" to be applied (Bergman, 2008). The term trustworthiness was therefore used to explain validity in this paper to measure the qualitative data.

Trustworthiness was achieved through triangulation (Merriam, 1995) (Zohabri, (2013), which was applied in this research as several sources of data collection were used, namely a survey and content analysis from Facebook and Twitter posts. Joppe (2000) argued that validity can be measured through triangulation as triangulation controls bias and considers explanations of other researchers.

Joppe (2000) further argued that researchers can determine validity through referring to data collected by other researchers. This paper validated the data collected against other research work that has been done in Food waste management.

Trustworthiness can also be measured through audit trail (Merriam, 1995) (Zohabri, 2013). With audit trail, the researcher needs to describe in full detail how the data was collected, how it was categorised and how the categories were derived, and how decisions were made (Lincoln and Guba, 1985 cited in Merriam, 1995). This research study gave full details on how the data was collected, how it was categorised, it named the themes and the codes, how it was analysed and how the conclusions were eventuated.

7.3 Limitations of the study

Time constraints was a key issue in this study, the study had to be done within four months. The researcher would have loved to actually have conversations in store with consumers at various Food Lover's Markets locations, but the content that came out of the content analysis which is where there were conversations among shoppers on social media was very rich and powerful because the researcher couldn't have influenced it. The researcher tried to reach out to Food Lover's Market to investigate how they dispose their food waste but the responsible person was reported to be on leave and again because of time constraints, the researcher had to carry on with the study without that discussion and use the data from secondary sources. A lack of information on how retail stores in South Africa dispose their food waste was another limitation.

8. CONCLUSION AND RECOMMENDATIONS

RECOMMENDATIONS

Consumers in South Africa need to be empowered and eased into the idea of community sharing as respondents were sceptical about sharing or buying food from neighbours. This is a great practice that is being used in several countries to help curb food waste and there is a need to make the South African consumer to be open to the idea. If done right, community sharing can be a huge contributor to the reduction of food waste in households as they can sell or share their surplus food instead of throwing it away.

It is also recommended that Food Lover's Market needs to add clear communication about their organic foods and lifespan as a brand strategy as organic is not a bad thing. There are consumers out there who want organic food and others who shop for promotions in order to buy in bulk, but they want food that will last longer or at least be alerted of the lifespan. If there is clear communication on the promotion signage then consumers would know what they are buying and it could build more brand trust, love and loyalty.

Lastly, around the world crooked shaped fruit and vegetables are being sold to consumers and consumers are accepting them. Organisations and businesses are sourcing the crooked shaped produce directly from farmers, Food Lover's Market on the other hand prides itself about sourcing their fresh produce from farmers and therefore have the upper hand to distribute imperfect looking foods. If communicated and executed well, South African consumers can start buying imperfect looking foods at high end stores.

CONCLUSION

This research study was a mixed method study about meaningful brand practices that Food Lover's Market could utilise in order to reduce food waste. The literature review presented, explored food waste in retail, consumer behaviour as a contribution to food waste and how other brands globally have contributed to the reduction of food waste through the innovative use of technology. There are two evident conclusions drawn from the study, firstly that crooked shaped produce can be sold to consumers and consumers are willing to accept them. Secondly, that a

community sharing network could possibly be given a chance as consumers discard food due to not having anyone to share it with or donate to. In addition, Food Lover's Market needs to be aware of the issues consumers have with the lifespan of their fresh produce and communicate it clearly using signage in store.

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ANNEXURES

ANNEXTURE 1

Questionnaire

Food waste is a global crisis with 1.3 billion tons of food getting wasted a year. A lot of food gets wasted in the supply chain process where food is distributed from the supplier to retail stores. Food waste also occurs at the homes of consumers where they throw away food whether cooked or uncooked. I am a post graduate student at Vega School conducting a study on better practices that brands/ retail stores can use to reduce food waste and your contribution will be highly appreciated. Your participation in this study is voluntary and you have the right to withdraw from the research anytime.

Section A

All about you as a consumer and your buying and consuming habits

1. How often do you throw away left-over cooked food in your household?
 - Once a week
 - Twice a week
 - So often, I can't keep count
 - Rarely
 - Never

2. How often do you throw away food that went off before you could even consume it?
 - Once a week
 - Twice a week
 - So often, I can't keep count
 - Rarely
 - Never

3. What would motivate you to stop throwing away food

4. Do you have a way of storing food in order to keep it fresh for longer?

- ☐ Yes
- ☐ No

5. If you answered yes to the above question, what is it that you do to keep your food fresh for longer?

6. How likely are you to buy food from your neighbours if they were selling because they bought just a bit too much?

Least likely

Most likely

1	2	3	4	5	6	7	8	9	10
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7. Please give reasons for your answer to the above question

8. To you what does an expiry date on food items mean?

Section B

Fruit and vegetables do not always come out with the perfect looking shape. Some of the picked fruit/vegetables come out somewhat skew or with a crooked shape

9. What do you think of food that is fresh but has a crooked shape? (Like an apple which is oval instead of round)

10. On a scale of 1 to 10, how likely are you to buy fresh food with a crooked shape?

Least likely

Most likely

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

11. How do you think crooked shaped fruit/vegetables can be made "cool" to consumers?

12. Would you expect fresh crooked shaped fruit/vegetables at high end stores if the global goal was to reduce food waste?

☐ Yes

- No
- Maybe

13. Please explain the reason for your choice in the above question

14. If crooked shaped fruit/vegetables were to be sold in stores, under what conditions should it be sold?

- In store at a discount
- At the back end of the store
- Not in store but on platforms like apps
- Other

15. Please explain the reason for your choice for Question 14

16. Is there any great thing you think retail stores can do with food that gets spoilt in store?

17. Do you care if your favourite retail store takes part in initiatives that help cut down in wasting food?

- Yes

- ☐ No

Communication and media

18. Do you ever see any messages on any media platforms about the need for people to reduce food waste as it is harming the environment?

- ☐ Yes
- ☐ No

19. If you answered yes to the above, where do you see or hear these messages?

- ☐ TV
- ☐ Radio
- ☐ Billboards
- ☐ Social media
- ☐ Other

20. Have you ever been influenced to do good by a social media campaign?

- ☐ Yes
- ☐ No

21. What kind of social media campaign would make you want to do better and reduce wasting food?

Section C

1. Please select the age group category you fall under

- 18 - 25
- 26 - 35
- 36 - 45
- 46 - 60
- 60+

2. Please select the category that best describes your employment status

- employed
- self - employed
- student
- unemployed
- Other

3. Please select your gender

- Male
- Female
- Non-Binary

4. Please select the most appropriate answer for your living arrangements

- living alone
- living with 1 person
- living with 2 more people
- living with 3 more people
- living with more than 4 people

Thank you for taking part in this survey 😊

Consent form for participants

I _____, agree to participate in the research study conducted by Boitumelo Lekalakala in the explorative study on meaningful strategies that Food Lover's Market can use to curb food waste. This research has been explained to me and I understand what participation in this research will involve.

I understand that:

- I consent to respond to questions in the provided questionnaire for the purpose of the study.
- My privacy will not be compromised in any way. My name and any other identifying information will not be asked in the questionnaire therefore my identity will be kept confidential.
- My involvement in this study is entirely optional, and I reserve the right to withdraw of further involvement in the study at any time.
- There will be no repercussions should I choose to withdraw from the research
- I may choose not to answer any of the questions that are asked on the questionnaire
- It is possible that in the findings of the study my words may be cited explicitly but in no way will my identity be revealed

Signature _____ Date _____

ANNEXURE 3:

POPIA ACT CONSENT FORM

CONSENT TO PROCESS PERSONAL INFORMATION IN TERMS OF THE PROTECTION OF PERSONAL INFORMATION ACT, NO. 4 OF 2013 (POPIA)

The purpose of the POPIA is to protect personal information of individuals and businesses and to give effect to their right of privacy as provided for in the Constitution. By signing this form, you consent to your personal information to be processed by Vega and consent is effective immediately and will remain effective until such consent is withdrawn.

1. I a natural person "herein referred to as the Data Subject" with ID No..... hereby give my consent to Vega "herein referred to as the Responsible Party" to collect, process and distribute my personal information where Vega is legally required to do so.
2. I understand my right to privacy and the right to have my personal information processed in accordance with the conditions for the lawful processing of personal information.
3. I understand the purposes for which my personal information is required and for which it will be used and consent to third parties accessing my personal information and to Vega sharing my personal information strictly for reporting/educational purposes.
4. I understand that, should I refuse to provide Vega with the required consent and/ or information, Vega will be unable to assist me.
5. I declare that all my personal information supplied to Vega is accurate, up to date, not misleading and that it is complete in all respects and will be held and/ or stored securely for the purpose for which it was collected and that I will immediately advise Vega of any changes to my Personal Information should any of these details change.
6. I also understand that I have the right to request that my personal

information be corrected or deleted, if it is inaccurate, irrelevant, excessive, out of date, incomplete, misleading, or obtained unlawfully or that the personal information or record be destroyed or deleted if the responsible party is no longer authorised to retain it.

Signed at this day of20.....

.....

Signature of data subject/ designated person

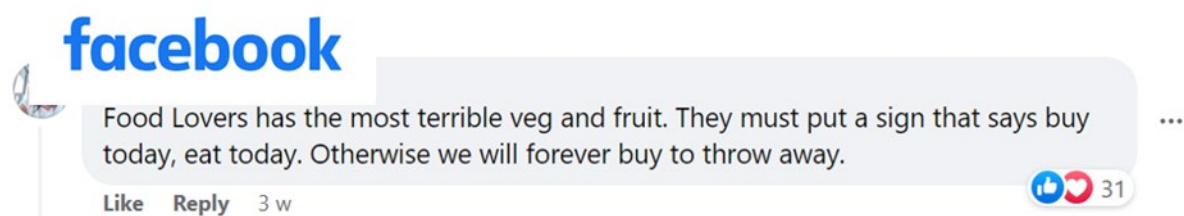
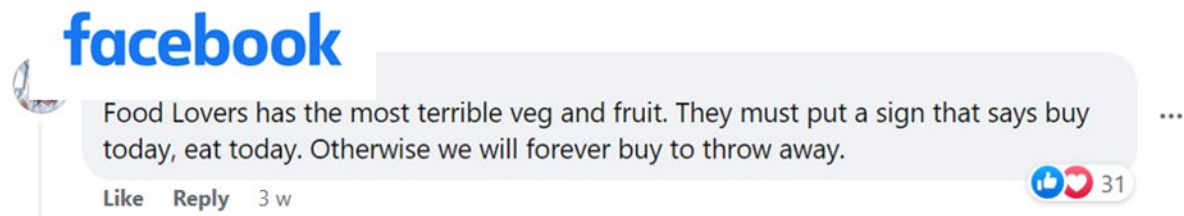
.....

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Name/Surname/Dept of Responsible Party
Date

Signature

Social Media Posts





it's terrible such a waste of money every time

Like Reply 3 w



...



This is very true, it's actually not worth it to run for their specials anymore. 😞

Like Reply 3 w

 8

...



I also dont like to buy from food lovers but I do sometimes we must remember that the longer fruit and veggies keep fresh the more it is treated and those treatments they do in the long run harms us yes I also like woolies their fruit and veg looks nice and keep a long time but what do they do to manipulate nature to get this and in the end how good is it for us?

Love Reply 3 w

  5

...

exactly my sentiment I love food that rots at some point in the immediate near future. It shows it can be digested easily. I once bought some apple that took 3 months I'm my fridge and even then they just shrivelled. That was from Woolworths

Like Reply 3 w



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