

A qualitative study: How retailers can use education to communicate and encourage food waste reduction to consumers

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Abstract

It is reported that about one-third of the food produced globally is not consumed but wasted across the supply chain according to (Food and Agriculture Organization, 2020). The aim of this study was to have an in-depth exploration of how this global phenomenon of food waste can be alleviated by studying the behaviours of consumers regarding food waste in South Africa. The study looked at existing theories about urban consumer behaviours and their response to managing food waste. Even though the problem of food waste expands across many areas from production, transportation to households, this study focused on the retailer to-customer relationship and explored how retailers can make use of consumer education as a communication element to encourage the reduction of food waste.

A theoretical framework was developed to introduce several factors that are considered in the recent literature regarding the impact of food waste. The incorporated secondary research guided the enquiry of how retailers can use their existing relationship with consumers to communicate the issue of food waste. Retailers have frequent interaction with their consumers through their stores and existing channels of communication, an established relationship exists and therefore it can be used to reduce food waste by educating consumers about food waste management in their households.

A sample of urban based consumers were observed for this study and the findings indicated that customers are aware of food waste and the social moral obligation not to waste food as thousands go hungry every day. The findings also revealed that for retailers to effectively communicate messages of sustainability they would have to employ engaging, person-to-person initiatives instead of relying on their day-to-day communication channels. Customers mainly engage with retailers for purchasing purposes, for any other matters the brand will have to take extra measures, this was also supported by a similar study of Asda retailer in the UK.

1. Introduction

1.1 Background and Rationale

The phenomenon of food waste is acknowledged as a global crisis that warrants awareness and the participation of the general public to fight against. The aim of this study was to explore to what extent can effective communication strategies from retailers influence and educate consumers about food waste and management in their households. In order to effectively implement strategies of food waste management this study found the importance of understanding the behaviour of consumers. According to Young, Russell and Robinson (2017) it was revealed that it is well recognised that the phenomenon of food waste is a complex problem whereby food outlets and households are some of the contributing factors. Research has indicated that it is globally agreed that certain measures ought to be implemented in order to reduce the increase and impact of food waste which will then suppress the impact of environmental, social and economic crisis.

Accenture (2020) has observed that as information becomes easily available to consumers through advanced technology, consumers are also becoming more aware of the products they purchase and the impact of their preferred brands have on the environment, hence the aim of this study. Current literature has unfolded that, although consumption patterns and choices of consumers reflect the kind of society they desire to be part of, there is however limited information for the consumers to make an informed purchasing decision (Mariana, Pablo & Tania, 2021). Based on these findings from various literature, this study acknowledged the importance of retailers to create a channel of awareness for consumers regarding their purchasing behaviour and its impact on social issues like food waste management.

This study took an exploratory approach and applied qualitative research methods to explore how effectively retailer communication channels could change the behaviour of consumers towards the problem of food waste. This research consisted of in-depth interviews with a sample of Shoprite customers in the urban area that were available at the store on the day of the research. This research has engaged in a theoretical perspective which considers the importance of understanding the behaviour between the retailer and the consumer before carrying through a strategy and how that can

influence the behaviour of consumers towards issues of environmental consciousness and food waste.

Food waste is considered a global problem and a matter of great importance among world leaders because of the impact of starvation in society as the world increases in population (Food and Agriculture Organisation, 2020). Production enterprises across the supply chain are encouraged to conceptualise strategies and ideas to fight against the increase of food waste and its impact. A study by Oelofse, Muswema and Ramukhwatho (2017) accentuates that even though there is limited data about the issue of food waste in South Africa, global evaluations suggest that developed countries generate more food waste than developing countries like South Africa. The study indicated that food waste raises a great concern for developing countries where citizens experience cases of poverty. It is deemed as an unethical social construct to waste food in many parts of the world where millions go hungry while there is food being wasted on a daily basis (Food Navigator, 2019). Oelofse et al., (2017) revealed that Gauteng as the most populated province in South Africa contributes about 45% of the food waste produced in the country, and these presented results suggest that the province produces an average of 0.48 kg in the Ekurhuleni region and an average of 0.69 kg in Johannesburg per week. This wastage is disposed into the municipal bin per household per week in the respective regions. According to Food and Agriculture Organisation (2020) there is persistent global demand on food producers and the retailers to communicate their stance and the role they play in the fight against food waste and how they position themselves to educate consumers about consciousness towards food wastage.

Shoprite Group as a meaningful brand that is committed to environmental friendliness showed its intention and efforts to fight against food wastage in its 2020 sustainability report in Southern Africa (The Shoprite Group, 2020). The brand also sought meaningful ways to support its customers and their communities during the 2020 COVID-19 pandemic when South Africa was on lockdown to help reduce the spread of the COVID-19 virus (The Shoprite Group, 2020). The brand exhibited characteristics of being an innovative and meaningful brand. According to the Havas Group (2017) the concept of a healthy and meaningful brand considers the

experience of the customer and how they associate with the brand, it considers authentic identity and sustainability. In today's world the customer is more than just a buyer, they are aware of what they purchase, how it can have meaning and impact in their lives. Brands that go beyond the product and make a positive, tangible impact on what matters to customers, gain a greater share of their lives as is with the case of Shoprite. These brands are rewarded with stronger attachments and deeper audience connections, which in turn, helps reinforce trust (Havas Group, 2017). A brand's meaningfulness is measured by its notability to improve the quality of life and wellbeing of its customers. Customers expect brands that provide solutions. In the report, Shoprite revealed its commitment to start processes to communicate and collaborate within its internal structures on aspects of sustainability to fight food wastage. The group focused on contributing surplus food worth R95-million to the community and a further R26.5-million towards cultivating community food gardens.

The Shoprite Group exhibited characteristics of a meaningful brand by showing its commitment to reduce the environmental impact of food waste in its communities and also promoting operational efficiency within its organisation. As a meaningful retail brand across South Africa, Shoprite has reported its acknowledgment of food waste and the impact it has on the environment, the economy and its commitment to combat the ever-growing issue of food waste across its value chain. The brand intends to reduce food loss at the retail and consumer levels significantly by 2030 according to its report. This includes training their staff to be leaders in reducing food waste.

The miscellaneous problem of food waste and the management thereof expands across the supply chain, consisting of various individualistic contributing factors. These independent factors are not only limited to farmers but also include food processors, retailers and ultimately the households that consume the food. From the observed studies, it is perceptible that global leaders and businesses ought to fight the food waste phenomenon. The focal point of this study therefore was guided towards understanding what are retail brands doing to influence consumers about food waste management in their own households, is the message clear to the

consumer and enticing enough to capture the attention of the consumer and mostly importantly does it spike a change in behaviour?

1.2 Topic discussion

This study has explored the phenomena that has been outlined above and how retailers could make use of consumer education to best communicate and encourage consumers to start the reduction of food waste in their households. The focus of this study has been centred around the retailer-to-consumer relationship, it has probed the assumptions and the behaviour of the consumer about how they manage food waste within their households.

This study has explored the existing theoretical concepts and constructed a hypothesis in order to establish if there is a relationship between retailers educating consumers and the consumer's subsequent food management practices. According to Payne (2014) a hypothesis is a process of testing theories, a statement about a relationship between variables in order to predict a certain outcome. In the context of this study, the change of behaviour of consumers about food waste is explored as an independent variable because it is changeable, while the education of consumers by the retailer brands is acting as a dependent variable that can be measured through the communication channels that can be used to drive the behavioural change of the consumers. The behaviour is independent because the campaigns and the instore education drives designed by the retailer potentially depend on how much the consumer is willing to engage with the educational content. Since the dependent variable can be measured, the Shoprite Group that was considered for this study will provide the measuring mechanism to determine if consumers engage with the educational content and change their behaviour.

The Shoprite Group is a retail business operating in Southern Africa with a distribution network across 14 countries and over 140 000 employees across thousands of stores. Its brand promise is to serve local communities with the lowest prices. As the largest retailer in Southern Africa that reaches a footprint of over 2 892 stores per day, it has influence on consumer behaviour (The Shoprite Group, 2021). The Shoprite

Group has exhibited characteristics of a meaningful brand by advocating for consciousness of environmental sustainability, hence it was considered as a suitable brand for this study and to be at the forefront of food waste management initiatives to educate consumers. The Shoprite Group in its Sustainability Report acknowledged the complex problem of food waste and the impact it has on society and the economy (The Shoprite Group, 2020). The brand further disclosed its intention to confront the spreading challenge of food waste in Southern Africa and emphasised its attentiveness to develop strategies that address the complex issue across its value chain.

The imminent era of sustainability and environmental consciousness has resulted in consumers across the global markets to become more aware and impelled to take measures to save the environment and exercise their power to voice their preferences when it comes to purchasing (Nielsen, 2018). A significant amount of food in many South African households still ends up in the trash bins despite the raising awareness and efforts for environmental consciousness. The focus of this study was therefore looking to find a solution to this growing challenge of food waste and reduce the impact it has on the health of the environment. The phenomenon of food waste has been observed through literature as a global pressure on food producers and the retail industry, it is multiplexed and therefore expands across the supply chain (Food and Agriculture Organization, 2020).

The outcome of this study provided potential solutions to reduce the economic strain and lessen the burden of costs on consumers that are a result of food waste. The study conducted by Oelofse et al. (2017) argued that South African households add a contribution to food waste production irrespective of their income. The problem of food waste has been a reality that affects the citizens' environment and the state of economic affairs whether consumers are conscious of its impact or not. Oelofse et al. (2017) contributed that food waste includes all the food that gets wasted by the consumer even though it would have been good to eat, this also includes the food items that go off in fridges that could not be consumed due to time or left aside in the plates during eating times and has to be thrown away. According to Food and Agriculture Organisation (2019) the food waste phenomena has a direct effect on the

pocket of the consumer and other social aspects. Enos (2019) contributed that there are several elements that encourage consumer related food waste in households and that grants the matter as a complex phenomenon that is influenced by diverse factors.

The items that make up food waste in the end differ from country to country depending on the different cultural influences and the social behaviours that are dominant in that specific region (Phasha, Molelekwa, Mokgobu, Morodi, Mokoena & Mudau, 2020). A report conducted by Enos (2019) explored the behaviour of students and how it affects the amount of food waste they produce based on their cultural background and shopping habits; the study indicated that students do not have a significant impact on food waste. Food Insight (2019) found that households waste more food that is acceptable for human consumption as compared to students in a student accommodation. The reports discovered some level of inability of consumers to understand their role in food waste and the impact it has on their surroundings. This lack of information therefore triggers the irresponsible behaviour of households towards food waste (Enos, 2019). This study intended to attest that the phenomena of food waste in South Africa can be lessened through awareness and education by the retailer to the consumer.

1.3 Problem Statement

The problem statement for this study was established on the basis of the frequent interaction between the retailers and their consumers through the stores and existing channels of communication, meaning that an established relationship exists. According to an observation by Young et al. (2017) this retailer and consumer relationship can be employed beyond its intention of rendering services and purchasing. The study suggested that consumers can be educated about food waste management by implementing well researched and effective methods of communication to deliver the message of reducing food waste in households. The resultant of the existing relationship between retailers and their consumers propelled this research to determine what kind of messaging design and strategy would

effectively influence consumers to change their behaviour and align with food waste management while adapting an earnest lifestyle of reducing food waste in their households. The research problem has taken the approach of an interpretivist and therefore the aim of the research was to capture an extensive interpretation of how consumers receive and decipher the communication they receive from their stores and how that communication could be designed better by the store in order to effectively engage and influence the consumer towards reducing food waste. Interpretivism is an idea that dwells on the understanding that we cannot study human beings in the same way we study objects in natural sciences. There exists a considerable body of literature to assume that humans change constantly based on their surroundings (Bezuidenhout, 2014). Dr. Salma Patel (2015) also describes this paradigm as one that describes what has been seen by interacting directly with people, he describes it as qualitative. Interpretivism, unlike positivism that can be defined broadly as the approach of natural sciences and believes that humans could improve their own world through educating themselves, interpretivism dwells on interpretation (Bezuidenhout, 2014).

The research was conducted to fill the knowledge gap about the perceptions of South African urban consumers about food waste in order to develop informed and practical campaigns to get consumers involved in food waste management in their households. The findings of this research were based on the qualitative methods that were used to discover the consumer behaviour.

Based on the study with Asda, a leading retailer in the UK, it has been suggested that consumption patterns of consumers can be influenced by retailers due to the kind of close relationship developed between consumers and retailers (Young et al., 2017). The study recommended that retailers can use their normal channels of communication to educate consumers and influence them towards environmental consciousness because the existing communication channels have proven to be effective in influencing consumer behaviour in general. This finding of the effectiveness of communication channels could then be adapted to the context of educating about food waste based on the researched consumer behaviour for issues relating to environmental consciousness in South Africa.

There were various truths that implied how consumers can be made aware of the impact of food waste and how they can be reached through effective communication based on their consumption behaviour. This study has followed the approach of the interpretivist paradigm that incorporates human interest into a study and is influenced by several intellectual traditions and interactionism as explained by (du Plooy-Cilliers, 2014). This study therefore relied on various realities of how consumers interconnect with the environment of food waste, and qualitative methods were considered to discover these realities. There were various factors upon which these realities depended, like their location.

1.4 Research Question and Objectives

Research Question

Enos (2019) has observed the significance of retailers spearheading the behavioural change of consumers towards alleviating the problem of food waste when the right channels and information are put in place to educate society. Over a third of the food that is produced in the world is lost across the supply chain and does not reach households even though there are millions of people who go hungry everyday (World Wildlife Fund, 2017). This has been classified as a global problem with a significance that has been recognised through literature, hence the purpose of this study to address how retailers like The Shoprite Group can raise awareness to its customers about the impact of the food waste crisis so they can take the initiative to control food waste management in their households. The research questions in this study have extracted answers by comparing and analysing the existing literature and also by conducting extensive interviews with retail customers. The aim of this exercise was to recognise and assess what communication strategies the Shoprite Group and potentially other retailers in South Africa should implement in their stores in order to influence consumers towards food waste management.

The following research questions have guided this study and sharpened the elaboration:

A: Are South African consumers aware of the implications of their contribution to the food waste crisis?

According to the report by World Wildlife Fund (2017) that explained how far reaching the crisis of food waste is across the world, it was crucial to explore this question and understand the depth to which consumers understand the impact they have on the crisis.

B: What measures can consumers take to confront and lessen the crisis in their homes?

The ultimate goal of this research paper was looking at the long-term results where consumers have achieved an inherent lifestyle of wanting to reduce food waste because it is beneficial for themselves and the environment.

C: What relevant retail communication strategy can be implemented to engage consumers voluntarily about food waste management?

It could be derived from the problem statement that there ought to be a message that will appeal to the consumer enough to invade and capture the mind of the consumer amidst all the other communication about products and services available at the store. This question will be answered by scrutinising data from the store about the behaviour of consumers towards previous campaigns and also have extensive interviews with the store manager about customer behaviour. This information would then be analysed against existing data from studies about retail messaging.

Research Objectives

The research objectives were to specify what actions could be taken towards answering the research questions and to make sure there is synergy and order as the research was being conducted. This is the summary of the research objectives.

- To understand the consumers' perceptions and attitudes in relation to food waste
- To explore what can retailers implement in-store to engage consumers in the process of managing food waste
- To understand what communication effectively reaches the consumer on a general basis

Once the actions were taken there would be insight to inform what strategies retailers can implement to increase awareness about food waste and improve reach through their communication channels.

2. Literature Review

Theoretical Framework

The Theory of Reasoned Action explained the planned behaviour of consumers and argued that a consumer will take a determined action towards purchasing something when there is an equally determined expected result. The consumer will act because they intend to receive a specific outcome from the purchase. This description therefore alluded that the consumer applies a rational decision-making process before they make their purchase. This theory therefore supported that it is probable for consumers to observe the in-store messaging and other communication channels with great attention at the stores if the product or the campaign that is being communicated is associated with a positive result that is specific to the consumer's lifestyle. It is understood therefore that the consumer is determined about their decision and they will require a significant amount of time to scrutinise their engagement with the campaign or the product that is being sold. The Engel, Kollet, Blackwell (EKB) Model as observed by Martín, Pagliara and Román (2019) expanded on the Theory of Reasoned Action by further laying out a process that consumers engage on in the decision-making process. The initial step of the process begins with the consumer recognising and absorbing the visual marketing material that is visible at the store and they then collect the data and process the information. Once the consumer has processed the information they compare and analyse it based on their past encounters and expectations. This decision-making is also affected by external socio-cultural factors.

What has remained as a common factor between the explored theories was how the consumers engage with the visual marketing material and the rational decision-making process, the consumer remains unmanipulated in the process. The observation of the EKB Model is that when the consumer engages with the product for the first time, they have absorbed the information and have to make a consideration. The brand then has the responsibility to evoke the desire for the consumer to further engage until they make the decision to purchase. Both theories that have been explored alluded to the consumer rationally coming to a place of

deciding without any manipulation, it was therefore suitable to consider both theories relevant for the aim of this study. The Theory of Reasoned Action describes a consumer that is determined on the decision they have made once they realise the specific outcome while the EKB Model is influenced by external factors, ultimately the consumers in both cases make a rational decision. Both of these theories were central to the psychological state of the consumer and how they process information that is presented to them and then decide once they have evaluated the information. Based on these theories, it has therefore been conclusive that the consumers' choices are influenced by their emotions, attitudes and function when it comes to purchasing. The effectiveness of this study will be amplified by the application of these theories to the proposed strategy of reducing food waste through educating the consumers. It will therefore rely on the particular retail brand itself to engage the consumer with the information to keep them intrigued enough to decide.

Literature Review

The purpose of this literature review was to identify gaps in previous literature and propose relevant methods and strategies to solve the global problem of food waste between the retailers and the consumers in their households. The sources of literature that have been investigated for this study to uncover concepts and theories that support the purpose of this research have looked into the context of the consumer and the retailer even though the food waste problem spans across the supply chain. The sources considered have uncovered if there is similar research and gaps that have been conducted about consumers and food waste before.

According to Chakona and Shackleton (2017) it has been found that there is insufficient empirical evidence of the amount of food being wasted across households per day in South Africa and sub-Saharan Africa. The literature that has been explored for this study was generated from differing geographical regions, however, there were similar aspects of the study that were relatable and cross geographical limitations and borders because some of the shared consumer behaviours are global. The EKB Model and the Theory of Reasoned Action theories proved that even though we are separated by geographical borders, consumer behaviours are similar globally.

The explored sources of literature therefore looked at different aspects of food waste in the context of the consumer. The literature explored how sustainable retailing can influence consumer behaviour on food waste from a UK generated retail study. It further investigated how the South African setting can influence the quality of household food waste in mid-sized South African towns. Lastly, the literature delved into the consumer related food waste, the causes and the potential points of action.

A study conducted by Young, Russell and Robinson (2017) suggested that there is a convenient relationship that exists between the consumer and the retailer that positions the retailer to influence the behaviour of the consumer. According to the study, the familiarity of this retailer-to-consumer relationship can be maximised to promote initiatives of environmental consciousness because of the frequent interaction between the retailers and the consumers. Young et al. (2017) argued that retailers have a greater probability to change the consumption patterns of consumers to overcome the problem of food waste because of the relationship between local retailers and the community. This study was conducted with a leading Britain based brand, Asda, that has over 180 000 employees and 600 stores. The brand has over 18 million customers in a week (Young et al., 2017). The Asda scenario is similar with The Shoprite Group that was considered in this study in South Africa, both stores have the similar structure in community reach and impact. It is observed through literature that the brands share the concept of a trust relationship between the retailer and the consumer that is explored in this study.

According to the findings by Young et al. (2017) the relationship and communication channels that already exist between the retailer and the consumer on a daily basis can effectively be employed to educate and influence communities towards food waste management. The Engel, Kollet, Blackwell (EKB) Model, however, suggested that consumers have the ability to process information before deciding, that they are active information seekers. The final decision that the consumers make is set off by external factors and it is therefore important for the retailer to communicate with precision and capture the mind of the consumer (Ajzen & Kruglanski, 2019).

The Young et al. (2017) study proved that when the consumers received repeated communication from the Asda store through their normal day-to-day channels there

was in fact an effect on the consumer behaviour. Based on this literature it was therefore concluded that given the correct communication strategy, retailers can have an influence on the behaviour of consumers to align towards pro-environmental sustainability by using conventional communication channels (Young et al., 2017). The study also indicated that for the effectiveness of the store messaging there has to be a repetition in communicating in order to have a long-term impact and consistency. According to Young et al. (2017) to achieve the longevity and the impact of the messaging campaign, consumers ought to be constantly reminded about the importance and impact of food waste and integrate it within their daily life. It was therefore inferred that when retailers are planning future campaigns it is recommended to note that once-off awareness campaigns may not be effective in developing a long-term effect and a lifestyle of food waste reduction. It was also supported across marketing industries that consumers are continuously learning, and therefore remember by repetition. The more messaging the consumers see the more they engage.

In order for brands to capture the attention of their consumers the best practice is through useful content that can eliminate any barriers as they learn about the product that is being offered (Hub Spot, 2021). It can be deduced that it is paramount to receive the consumer's attention and not to force or manipulate it, in that way the consumers will develop a genuine interest in the campaign and the message that is being communicated. This allows the consumer with the opportunity to engage at their own preferred timeline and ensuring that the message of the brand is understood.

The study at Asda made use of calculating descriptive statistics for all variables to understand the effectiveness of the communication channels where six national surveys were distributed to the database of the Asda retailer and were carefully monitored. The online survey in Young et al. (2017) study was a questionnaire that measured the food waste behaviour of consumers and were implemented at different seasons of the year to obtain accurate feedback with a response of more than 10 000 participants. The communication in the messaging and the survey contained knowledge about shopping lists, how to store food better, how to plan meals better

as well as tips on how to use food that could be thrown. Even though the results of this study show there was an impact on food waste due to the messaging, there is still a gap not answering what leads consumers to purchase more than what they can consume in their households.

The aim of this research was to encourage consumers to reduce food waste based on finding their reasons for wasting food. It can be argued that previous literature revealed that there are certain weaknesses when compared to the peer study even though the method is accurate. Chakona and Shackleton (2017) in their study obtained the data of food waste from their research participants by randomly selecting 200 households comprising of rural households, semi-urban and urban households and carefully observed their behaviour over a period of time to obtain the most accurate data of consumer behaviour. Based on the results of the explored literature, a new approach is required to capture the most accurate information to anticipate the behaviour of consumers when they are presented with the information on how to minimise food waste. The proposed approach to investigate the reasons why consumers are not taking a lead in food waste management will aid in addressing the gap of knowledge. It was an important step for this research to understand why consumers are not reducing food waste, whether it's lack of knowledge about the subject or a cultural conditioning.

According to Oelofse et al. (2017) food waste has been seen as a global problem and it has therefore been principally accepted to seek an understanding of the consumer behaviour of both the urbanised environment and the townships. Studies also revealed that there is less food waste being generated in the farmsteads in parallel to the habit of their counterparts in the urban areas and this contrast is attributed to higher wealth in the urban areas and their need to store food at home instead of growing their own (Chakona & Shackleton, 2017).

Young et al. (2017) supported this observation where urbanised areas show more food wastage while Chakona and Shackleton further delineated their research to quantify the behavioural traits of the consumers in the farms. Aschemann-Witzel, Hooge, Amani, Bech-Larsen and Oostindjer (2015) were of the opinion that it is anticipated that the phenomena of food waste can only be efficiently minimised, but

it cannot be entirely abolished. This view was on the basis that the problem is a multidisciplinary issue that flows from the earlier stages of the supply chain. A certain fragment of this consumer related problem needs to be intercepted through actions upstream, however, it has also been established that the majority of the impact of food waste is concentrated in the urban areas which was where this research and exploration was focused.

3. Research Paradigm

3.1 Interpretivism

This enquiry started off with the collection of secondary data that was related to the topic of food waste from existing literature and observed patterns in the data to develop theory and therefore, this study has taken the approach of inductive research. The aim of this study was to explore how retail brands in South Africa could effectively communicate the message of food waste management to its consumers and what communication strategies could be developed and implemented to alleviate the problem of awareness among consumers about food waste. The brand in focus for this research has been The Shoprite Group. As has been previously reported in the introduction, the focus of this research has been to solve an existing problem in society, and also interpret what the problem is, why it exists and how it could be solved using information that may already exist instead of creating a new reality. There were differing perspectives of food waste that already exist in published literature from different backgrounds that experience the same reality.

This study then was be guided by the chosen research paradigm that leads to interpretivism as an applicable paradigm for this study. According to du Plooy-Cilliers (2014) interpretivism is described as an idea that dwells on the understanding that we cannot study human beings in the say way we study objects in natural sciences. There was considerable body of literature to make the assumption that human beings are constantly changing based on their surroundings, and this study has paid attention to the behavioural changes of human beings in their surroundings. Patel (2015) has outlined the interpretivism paradigm as qualitative, and further stated that it describes what has been seen by interacting at first hand with people. Interpretivism and positivism are contrasting paradigms where the latter can broadly be described as the approach of natural sciences and believes that human beings could improve their own world through educating themselves, while interpretivism abides on interpretation (du Plooy-Cilliers, 2014). Another paradigm that exists is critical realism, that focuses on exposing myths and empowering people to transform radically. However, for the purposes of this study which was to discover and

understand the natural behaviours of consumers in order to anticipate the alleviation of food waste. This can be achieved by observing the approach and paradigm of interpretivism instead of positivism and critical realism. This has been the process this paper has considered for generating the knowledge of the topic:

Ontology of interpretivism: (Constructivists)

The matter of food waste in South Africa is broad and this study did not believe there was a single truth on how consumers can be made aware of the impact of the phenomenon. There were differing surfaces of reality to the problem that could have been realised through qualitative methods. The reality was a social construct that depended on how consumers experience food waste management based on various factors like location.

Epistemology of interpretivism:

There was interpretation of information required for the differing realities that exist between retailers like Shoprite and the communities they serve in order to discover the underlying concerns of this study. According to du Plooy-Cilliers (2014) there needs to be an understanding of what the community perceives as common sense in order for this study to understand the consumer behaviour regarding food waste management.

Theoretical perspective of interpretivism:

This facet of the paradigm relied on describing and interpreting how the retailer and its consumers exist with the problem of food waste on a continual basis and how this problem can be solved. This interpretative research has depended on subjective quotes and feedback that was received from participants instead of abstract statistics that serve as evidence in positivism. The effectiveness of the interpretivism research method were supported by qualitative interviews, life history of the consumers and existing literature.

3.2 Justification of the interpretative research paradigm

The interpretative research paradigm did not predetermine education about food waste (dependent variable) and consumer behaviour (independent variable) instead it relied on how human beings interact in their environment as the research proceeded. The interest of humans is incorporated into a study and is influenced by various intellectual traditions and interactionism (du Plooy-Cilliers, 2014). It was through this method that every effort was firmly utilised to understand the prospect of the subject that was being studied but it was not without its shortcomings. According to Kivunja and Kuyini (2017) researchers can be exposed to inevitable vulnerability that can surface during the interaction of the researcher with the participants, and therefore leaves a room of bias for the researcher. Even though this be the case, Darby and Fugate (2019) argue that interpretivism is widely accepted because of its development of alternative ways of seeking knowledge that enhances the potential for creativity, expansion, and progress in the field of study.

4. Research Methodology

4.1 Research Strategy and Design

This study has taken the method of qualitative research in order to confront the underlying aspects of personal experiences of consumers and the meaning therefore that is associated with the phenomena of food waste in South Africa. According to Strydom and Bezuidenhout (2014) it is complex to measure and quantify personal experiences and the meanings associated with a certain phenomenon in the qualitative research design and therefore, quantifiable measurements were not required or suitable for this study. This study was concentrated on the lived experiences of individuals in the urban communities.

This use of qualitative data collection method avails the opportunity to gather the depth of the data of the complex and multifaceted experience associated with the phenomena (Strydom & Bezuidenhout, 2014). The data collection method for this study was through in-depth interviews with a few selected customers at Shoprite in order to develop theoretical concepts based on the in-depth understanding of perspectives of the Shoprite Group customers based in Randburg, an urban area. The in-depth interviews allowed asking the research questions with the objective of learning more about what consumers think and understand about food waste management in general and in their households. These interviews helped to understand the consumers' attitudes, beliefs and experiences about the phenomenon. The set of questions were open-ended with the aim of gathering this information through an open and honest conversation with the participants in order to correctly interpret and understand the world and perceptions of these participants.

According to Qutoshi (2018) the study of how things appear as we experience them and their meanings is called phenomenology, which is the structure this study has adopted. It has been gathered that phenomenology involves studying real experiences from the first-person point of view. The nature of the structure is that, it is intentionally directed towards the experience of consumers about food waste,

how they perceive and experience it in their lives. This was achieved through the cross-sectional study where data was collected from various participants at a single point in time by observing the variables without influencing them. Kesmodel (2018) observes that cross-sectional studies collect relevant data at a given point in time and there are no measurements involved because of the inability to assess incidence. This approach of cross-sectional study has served the purpose of assessing common attitudes of consumers about food waste in urban areas. It was advantageous to this study that the cross-sectional method captured a specific point in time and the finding has been analysed to create studies in for in-depth research. It was also time saving and cost effective to perform this cross-sectional study considering the dominating issues of Covid-19 pandemic restrictions at the time this research was conducted. Even though the cross-sectional approach was suitable for the parameters of this study, there was also a challenge when putting together the sampling pool based on the common characteristics of the population that was being studied.

4.2 Sampling Plan

When it is almost impossible to access the entire population to determine and study their experiences of a phenomenon, a carefully selected sample of the accessible population is considered and approached through the non-probability sampling method (Pascoe, 2014). The non-probability sampling method was in line with the parameters of this research because there was no access to all the individuals of the population at the time this research was conducted due to limited movement and conduct of individuals as per Covid-19 pandemic restrictions by the government of South Africa in 2021. It was also not feasible to conduct the sampling through a random probability-based method due to time constraints and high cost implications that could potentially be imposed on the researcher. In this case, the sample was selected on the basis of accessibility.

The population was sampled using purposive sampling and accidental sampling where the latter consisted of participants chosen because they happened to be at the right place at the right time. They were randomly selected for being at the Shoprite store at the time of sampling at that given point. Purposive sampling was based on the

characteristic that the participants were actually shopping at the Shoprite store at different times of the day, at peak time and off-peak time to obtain feedback from various types of the population.

Apart from the cost-effectiveness and time-effectiveness as compared to probability sampling, non-probability sampling was also advantageous to this study because of the possibility to reflect descriptive comments about the sample. However, it remained a challenge that the proportion of the entire population was not included in the sample group.

4.3 Data Collection Instrument

The main instrument of data collection that was used for this study were semi-structured questions. These questions were grouped into three categories with the objective of ultimately obtaining an insight on the behaviour and attitudes of the Shoprite Group consumers about food waste, obtain data about what can the retailer implement to introduce food waste management and lastly to obtain data about how can retailers communicate the message of food waste management effectively. The advantage of these semi-structured interviews was the ability to prepare questions beforehand so they could help guide the direction of the conversation with the consumer and keep the respondents focused on the topic. This allowed the respondents to give open-ended responses in order to receive in-depth understanding of their perceptions regarding food waste.

The researcher selected the respondents as they were exiting the Shoprite store after purchasing their products and were politely requested to be part of a brief research interview about their shopping experience with Shoprite. The respondents were selected on the basis of convenience, that they at least had a few items with them and were not in a hurry to get where they were going. Once each respondent accepted the invitation to do the brief interview they were called to a private room where the manager worked at Shoprite. The conversations were friendly and unintimidating, allowing the participant to relax and be open about their experiences. A total of five participants comprising of both men and women between the ages of

26 and 39 were chosen for this study so we could obtain data that is inclusive of different ethnicity, gender and cultural experiences.

Once the chosen participants were brought into the private room, they were informed that this was an academic study about food waste and how retailers can reduce its impact by educating their customers. Once the participants agreed to take part, the conversation began and was recorded on an iPad through the voice note application, to be later transcribed and studied for the analysis.

The semi-structured questions for these sample interviews are attached at the end of this report as appendix A.

4.4 Data Processing and Analysis



The interviews with the participants were recorded into audio clips and then transcribed, word for word. The first step of processing the data was to read the scripts and sort the responses into answers of the same question from all the participants and then find similar responses to formulate a common insight. The common insights were highlighted into the same colour, the responses that were unique were also considered as part of the findings. The similar responses were labelled into codes and created themes of what were the perceptions of consumers. Themes that surfaced from the results were awareness and perceptions of what food waste was and meant, the emotional impact food waste has on consumers and the community. Accountability of who was responsible for food waste was also a theme that surfaced from a few respondents. Customer expectations, communication channels and communication frequency were the key areas of interest in the findings as the consumers had a lot to say in that regard.

Once these themes were created the final step was to relate the findings to the initial research questions and interpreting what these themes and findings mean for the purpose of this research.

4.5 Research Reliability and Validity

According to Koonin (2014) the concepts of reliability and validity in research are most commonly used by quantitative researchers in relation to the measurability of their findings. This was a qualitative study and therefore this study has rather referred to trustworthiness which encompasses the credibility, transferability, dependability and conformability of the results. The aim of this research was to promote the understanding of food waste in relation to how retailers can influence how their consumers can adapt the lifestyle of reducing food waste, the aim was not to generalise results of a broader population of South Africa. A period of approximately twenty minutes was spent with each of the participants of this study to ensure credibility by gaining an in-depth understanding of their views regarding food waste. The researcher ensured that the participants were actual customers of the Shoprite brand and that the questions that they were asked were exactly the same in order to achieve the transferability of the results to other studies.

5. Presentation and Discussion of Results

A sample of five Shoprite customers from Randburg were interviewed in-depth for this study in order to gain an insight on the following research questions:

- Are South African consumers aware of the implications of their contribution to the food waste crisis?
- What measures can consumers take to confront and lessen the crisis in their homes?
- What appealing retail communication strategy can be implemented to engage consumers voluntarily about food waste management?

The participants were asked ten questions that we based on the three main research questions that were guiding this study. These interview questions were grouped into three categories with the objective of gaining in-depth insights on the behaviour and attitudes of the Shoprite Group consumers about food waste. The results were then grouped according to themes that would then answer the guiding research questions in the end, and these were the findings according to themes:

Awareness and Perception

Research Question: Are South African consumers aware of the implications of their contribution to the food waste crisis?

These are the findings about the perceptions Shoprite customers had about food waste:



Only 1 / 5 of the respondents described food waste from a retailer point of view while the rest of the participants were associating food waste with their households and how they were mismanaging their cooking and how they bought groceries. They described food waste as the food they throw away because of rot and expiry dates.

The results of the sample about the awareness and perception of food waste also revealed that Shoprite consumers are aware of what food waste is, but their knowledge was only limited to the consumer level and not the incidents of food waste that occur throughout the food supply chain. One of the participants indicated that for them food waste was about buying more food when they actually knew that they would not use that food and then eventually being forced to throw away the food when they later realise it was getting rotten.



Emotional Impact

Only 1 / 5 of the respondents related the impact of food waste to sustainability.

The majority of the sampled customers mainly associated food waste with the social construct of morality, that it is inhumane to waste food when people go hungry every day.

The emotional impact of food waste to the sampled customers was mainly associated with the social construct of morality. Only 1 out of 5 related the impact of food waste to sustainability, stating that wasted food like vegetables could be reused in the garden for soil fertilisation, while one participant raised concerns about the risk of food waste on personal health.

Accountability



Half of the participants expressed their expectation that the stores should take responsibility to educate their customers while the other half admitted it's their responsibility to reduce food waste.

When asked who should take accountability for food waste reduction half of the participants expressed their expectation that the stores should take responsibility to educate their customers and also control how food was being stored up in the shelves

before it expired while the remaining half of the participants admitted it's their responsibility to reduce food waste. 1 out of 5 of the respondents stated that the stores were in the business of making money and it was not in their interest to educate customers about how they should manage their food.

Discussion of results about awareness and perception

The results of this study about the awareness and perception of food waste among Shoprite customers revealed that the customers have a knowledge of what food waste is but mainly on the aspect that affects them in their households. They had concerns about food waste because it is morally wrong according to their social norms to waste food but the lack of awareness to the majority about the impact of food waste at a larger scale that affects the economy remained a major issue for this study. According to a study by Chakona and Shackleton (2017) as cited before, the most common reason for food waste in South Africa is because it smelt bad due to households having prepared more than what was required. This finding was also similar to the responses that were given for this study where the participants attributed food waste to mismanaging cooking and the buying of groceries. This is happening in a country where most South Africans go to bed without food which the participants are aware of, yet food was still being wasted in their households. Phasha et al. (2020) attributed food waste in South Africa to a cultural aspect that South Africans buy food in large quantities, and this was confirmed by one of the participants who stated that they want to have more than enough food in their household.

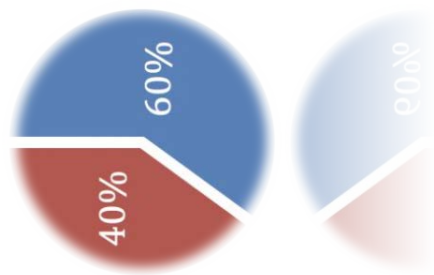
Young et al. (2017) observed that leading retail brands have left the issue of food waste control to consumers because of the lack of participation by governments to facilitate a strong sustainable business strategy to lessen the impact of food waste. The findings of this study have found a similarity to this observation as the participants contributed that the retailers and government should take the responsibility to educate consumers about the impact of food waste because the available information was not enough. However, it remained undecisive in this study

whether it should be the retailer and other stakeholders who should take the responsibility, or it should be the consumers.

Points of Action

Research Question: What measures can consumers take to confront and lessen the crisis in their homes?

These are the findings of the study about what retailers can implement in-store to encourage consumers to manage food waste:



40% of the respondents indicated that they did not take any measures to prevent food waste in their households, stating that they just bought what they needed at the time as

per culture of buying more so you could have more than enough. One particular participant stated that they didn't take measures because they were not hung up on food waste, they bought what they ate and if it expires before they could eat it, they would throw the food away.

The most common measure of reducing food waste among the 60% of the sampled customers was a shopping list in order to manage how much food was purchased instead of buying recklessly. Home preventative measures like food freezing and storage were also considered by customers.

One participant of the 60% that took home preventative measures to reduce food waste commented that they draft a list of the items they wish to buy as a way of minimising wastage. However, one participant of the 40% who did not take measures associated their lack of inspiration to reduce food waste to a cultural aspect, that they don't plan for food waste to happen it just happens when they realise later that they should not have bought that item because they did not really need it.

The sampled customers expected Shoprite to find ways to lessen food waste and also create a lifestyle for customers to manage food waste, and this expectation was channelled by the morality of seeking places where the food can be distributed to the less fortunate as part of the store programme. Only one participant out of 5 indicated that they do not expect Shoprite to educate customers because their mandate is to serve customers as a business.

Discussion of the points of action

Phasha et al. (2020) discussed that the issue of food waste is a social problem that involves the loss of energy, water and the financial resources across the whole food supply chain. The study further emphasised the importance of raising awareness in communities about the impact this phenomenon has on the environment. The findings of this study on the behaviour of consumers and retailers have uncovered what the previous study by Phasha had alluded to, that the community are not aware of the impact of food waste on the economy, it is only understood on a household level, and therefore the stakeholders could look into formulating strategies of awareness. This finding then aligns with the expectation of some of the research participants that look upon the government authorities and retailers to lead the conversation and initiatives of combating the phenomenon of food waste in South Africa.

Effective Communication

Research Question: What appealing retail communication strategy can be implemented to engage consumers voluntarily about food waste management?

These are the findings of the study about what kind of communication can effectively reach the consumers:

The sampled Shoprite customers attested to not paying attention to any advertising material or promotions in-store, they focused mainly on what they had come to

purchase, nothing caught their minds especially when the stores were not clean. Cleanliness and nicely packaged shelves were the factors that influenced the customers' in-store behaviour. One out of the five customers were likely to pay attention to the in-store advertising if it was about deals and promotions. One customer revealed that he never had intentions to see anything else, he bought out of habit and loyalty to the brand. Most of the customers do not pay attention to the in-store advertising unless it had to do with what they came to the store for. Four out five of the sampled customers admitted to only engage with Shoprite communication channels across all media platforms only for grocery specials.

The participants admitted that when they received communication from Shoprite, they always looked forward to specials and nothing else and four out five Shoprite respondents checked online for specials before they visited the store. The customers stated that they received emails every now and then, but they never read them. The sampled Shoprite customers would appreciate being informed and educated about food waste initiatives by their supermarket but not through the normal day to day channels of communication, they maintained that they used those channels mainly to seek promotions, they did not read emails. Three out of five customers were willing to listen to in-store promoters and paying attention to a uniquely designed installation that stood out to communicate a positive message. Only one out of the five customers were willing to receive the messaging if there were freebies that came along with the positive message. All the participants did not follow Shoprite on any of their social media pages.

Discussion of effective communication

According to the Young et al. (2017) study of the Asda retailer, in-store communications about the reduction of food waste that were presented alongside the normal product marketing were usually missed by customers. This was a similar finding with the sampled group of Shoprite customers in South Africa who revealed that in-store communications that were not in relation to their grocery plans were not their primary focus and therefore missed. Communications about sustainability

were often missed because the attention that was drawn towards the products instead of other messages that had nothing to do with groceries. The Asda study revealed that customers paid attention to this communication when the message is communicated repeatedly through awareness campaigns while the Shoprite group study contributed that customers were more inclined to paying attention to non-product related communications if they were delivered through unconventional mediums like in-store installations and actual person promoters.

6. Conclusions and Recommendations

6.1 Ethical Considerations

This study was conducted under strict guidelines that considered the ethical aspects of research in order to protect the participants, give reliable results to communities and honour the guidelines as well as the reputation of the institution. The participants of this study were explicitly informed from the first point of contact that they were being involved in an academic research and that their identities would be protected. They were informed what the study was and what the intention was for the results obtained from the study. Once the research project was explained to each participant, they were required to sign a consent form to participate in the research interview. Consent forms are attached in appendix D.

Louw (2014) recommends that for ethical purposes the research participants' physical and psychological comfort needs to be protected. This ethical consideration was prioritised when this study was conducted, and each participant was informed in writing and verbally that their names and personal information would be protected by the researcher. The researcher ensured that the open-ended questions that were posed at the participants were not embarrassing the participants and also avoided wasting the participant's time by committing to only asking questions relevant to the study. No participants were harmed in the process of this research because the office at the Shoprite in Randburg was safe, well lit and within working standards of the Shoprite group as it was commonly used by the store manager and staff. The participants also agreed to be recorded for the study once they were informed of the purposes of the recording and were ensured that their recordings were mainly for transcribing purposes and that their names would not be mentioned anywhere in the research. The participants' consent forms for audio recording are also attached on appendix C.

The researcher was cognisant of the research ethics and practise in the process of this study especially when involving human participants and the respect of human rights were promoted throughout.

6.2 Limitations and Recommendations

Despite this study having obtained data about the behaviour of Shoprite customers about food waste, it was not without its limitations. This study was limited by the unavailability of a manager from Shoprite and the unwillingness of the brand to allow students to do any further research on the brand. The head office claimed they had received overwhelming requests for research this year from students and therefore could not allow this study. This limited the study from obtaining in-store insight about the effectiveness of past communication strategies and campaigns from the brand, and this hinderance had therefore limited the data to answer the objective of finding out what relevant retail communication strategy could be implemented to engage consumers about food waste. However, even though this objective was met with limitations there was sufficient data from the consumers to form an insight and make a conclusion. Another limitation was the issue of time and finances especially in the midst of the COVID-19 pandemic in South Africa and the lockdown restrictions that were imposed by the government. The researcher was not able to observe the behaviour of the consumers over a long period.

The objective of this study was to explore what communication strategies from retailers could effectively encourage consumers to reduce food waste in their households based on finding their behaviour towards communication. This study has revealed that consumers are aware of food waste but there were no stakeholders emphasising its global impact to the general public. Based on the findings explored in this study, the researcher recommends further exploration and actual experimentation on the behaviour of how consumers decipher the information they receive from retailer in order to obtain quantifiable data on the actual person who do pay attention to in-store communication. What this study has achieved was to identify the insight that Shoprite customers in South Africa know about food waste but did not pay attention to in-store communication and their online platforms if it was not about groceries and therefore could not be effectively reached through general communication channels. Further studies could explore the reasons for this finding.

6.3 Conclusion

The results of this study have revealed that customers were aware of food waste and the social moral obligation not to waste food as thousands go hungry every day. However, for the Shoprite retailer to effectively communicate messages of sustainability they would have to employ engaging, person-to-person initiatives instead of relying on their day-to-day communication channels. Customers mainly engaged for purchasing purposes, for any other matters the brand would have to take extra measures, this was also supported by the study of Asda retailer in the UK, that repetitive campaigns are more likely to get the message across.

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Appendices

Appendix A

Questions to the customers

1. What do you know about food waste?
2. How do you feel about food waste?
3. In your opinion whose responsibility is it to fight the crisis of food waste?
4. What measures have you taken in your household to reduce food waste?
5. What are your expectations from your supermarket to limit food waste?
6. When you go to your local supermarket, what else do you pay attention to apart from shopping?
7. What do you look forward to when your local supermarket reaches out to you through media?
8. What is your source of information about your local supermarket promotions?
9. How would you like to hear about food waste initiatives from your local supermarket?
10. How often do you visit the online pages of your local supermarket?
11. Where do you stay?
12. How old are you?