

Meaningful Management: A Millennial Perspective of Woolworths' Food Waste Management Practices

ABSTRACT

Despite the evolution of our abilities to preserve food to ensure the sustenance of humanity, an estimated one-third of the global food production is lost or wasted along the food supply chain each year. This highlights a contradiction between global food waste and food scarcity, identifying the increasing problem of inefficiency in the food production system. South Africans have suffered at the hands of this scarcity, with nearly 40% of citizens experiencing food insecurity. Retailers and their consumers occupy essential positions within the food supply chain respectively, and their relationship has been studied extensively in the context of food waste, management and prevention. A gap in the research, however, exists in relation to customer perceptions of retailers' commitment to food waste management and the implementation of practices mitigating food waste along the retail food supply chain. Also requiring further study are customer behaviours - both shopping and domestic - because of being influenced by retailers' food waste management policies and protocols. A Positivist, correlational research survey was conducted among Woolworths' Millennial customers to identify potential correlations between the brand's food waste management practices and the influence of these on customer perceptions and behaviours. Based on the survey results, it was discovered that respondents already support the Woolworths brand and care about food waste management but were largely unaware that Woolworths had these policies and practices in place. Once made aware, most Woolworths' Millennial consumers surveyed perceived the brand more positively in light of these policies. Though a certain segment of respondents indicated a willingness to support the brand more regularly as a result, others remained neutral or declined to support Woolworths more often, and the question regarding domestic behaviours showed that Woolworths' food waste management practices had failed to influence consumers to adopt similar practices at home.

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Word Count: 14560

STUDY CONTEXT

Customer perceptions of brand activities have a direct impact on consumer shopping and domestic habits (Friske, Cockrell & King, 2022). According to Maya (2021), positive perceptions may increase customer support and advocacy of a brand, while negative brand perceptions can result in a loss of consumers to competitors (Sago, 2014). In the context of Cape Town, South Africa, the problem of food waste, as well as concepts of food waste management are familiar, and the Western Cape Government has implemented landfill bans by which all waste generators must abide (GreenCape, 2017). In addition, businesses and other entities - such as municipalities - generating organic waste are currently required to submit plans outlining the management of their wastage. These landfill bans and waste management plans will be explored further under The South African Context, as part of the Literature Review. Despite the practices being put in place to mitigate food wastage on a large scale, there appears to be a lack of peer-reviewed research conducted, specifically in the context of Cape Town, on customer perceptions or awareness of individual retailers' efforts to do the same. This will be discussed further in the Literature Review.

Considering that 40% of South African citizens experience some form of food insecurity throughout the country as a result of poverty and other factors (Stats SA, 2022), price-sensitivity may influence the shopping and spending habits of these individuals (Kagan, 2020). Furthermore, some communities support or boycott certain retail stores based on ethical beliefs, as with the Woolworths and Clover boycotts (BDS, 2015; Mlamla, 2022). Based on these decision-drivers, it is interesting to note the lack of research done on whether customers would shop at, or boycott, a retailer due to its stance on food waste, and this research gap will be expanded on in the Literature Review below. This gap creates an opportunity to explore how customers perceive brands who make it their mission to adopt effective food waste management practices within their business practices (Woolworths, 2021). A brand of particular interest and significance is Woolworths Foods, as will be expanded on below.

To extend the above realisations into a research topic, Bezuidenhout, Davis & Du Plooy-Cilliers (2014) mention various sources to consider, such as direct experience. Majola (2021a) states that 45% of the available food supply in South Africa is wasted, according to a Council for Scientific and Industrial Research (CSIR) study. Another source is social contexts; Majola (2021b) also comments on escalating food prices that continue to hurt low-income families. This further indicates the juxtaposition of food waste and food insecurity prevalent in South Africa. Considering that Millennials are especially regarded as caring about social issues such as these and the preservation of the environment as well (Allen & Spialek, 2018), this study thus aims to gain more insight into the Millennial stance on food

waste, and more specifically, their perceptions around what retailers are doing to combat this problem. Tradition is also a source to consider; due to the nature of Positivistic research studies and the focus on quantitative data whilst disregarding qualitative data and opinions or beliefs (Bezuidenhout et al., 2014), all of which will be explored in other sections of this report, tradition and culture will not form part of this study.

Conversely, theories must be considered; it is due to the lack of research on customer perceptions of retailer food waste management that this topic must be addressed. There have, however, been related studies conducted on similar topics, and these will be used to guide the development and implementation of this study, as will be outlined in the Literature Review (Bezuidenhout et al., 2014). Finally, the media plays a vital role in the creation of a research topic for this study; Woolworths has been criticised for their lack of policies on food waste management (Reddy, 2020), and in response, has taken active steps to create processes for more sustainable retail practices (Woolworths, 2021). This discovery further adds to the necessity in researching this topic and uncovering insights regarding Woolworths' progress thus far, according to Millennial customers (Allen & Spialek, 2018). Given the above sources, there is evidently a gap in the knowledge of Millennial customers' perceptions and behaviours around food waste management, based on retailers' efforts (Frisk, 2022). Given Woolworths' (2021) commitment to sustainable processes, the focus of this study is on researching whether consumers recognise these promises, and how this would affect their shopping and domestic habits (Bezuidenhout et al., 2014). Ultimately, the research topic of this study may be phrased as:

“Millennial customer perceptions and behaviours as a result of Woolworths’ (2021) food waste management efforts.”

PURPOSE

The purpose of this study is to assess potential correlations between a retailer's food waste management and resulting customer perceptions and behaviours. The brand of focus for this project is Woolworths, and the aim of this study is to assess whether customers are aware of the brand's stance on food waste, and what consumer perceptions are of Woolworths' (2021) food waste management. The Woolworths' Millennial Customer Perception study will utilise a Correlational research design to gather and analyse data (Bezuidenhout et al., 2014). This research design will be chosen as it assesses relationships without researcher influence (Bhandari, 2022; FormPlus, [n.d.]). This is ideal to manage the scope and feasibility of this research study (Bezuidenhout et al., 2014), as the variables and control of a correlational study are not influenced by the researcher, and thus ensure ethical data collection that is uninfluenced in any way (Bhandari, 2022). These concepts will be elaborated upon in more detail in the Research Methodology and Feasibility sections later.

Mihalčová, Korauš, Prokopenko, Hvastová, Freňáková, Gallo and Balogová (2021) conducted a study that applied correlational research design regarding the alleviation of poverty in relation to food waste management. Mihalčová et al. (2021) explains that "a relatively weak inversely proportional relationship between the amount of food waste per capita and the proportion of the population at risk of poverty among the total population of EU countries was identified through correlational analysis." This Woolworths study's aim is to assess whether a correlational relationship exists between Woolworths' (2021) food waste management and their Millennial customers' perceptions of the brand, as well as resulting behaviours (Frisk, 2022). The questions asked in the Google Forms survey will offer a sliding scale of options, each representing a level of correlations, as will be explained further in Data Collection below.

BACKGROUND AND RATIONALE

Established in 1931, the Woolworths brand has existed in South Africa for nearly a century (Woolworths, 2022). According to Woolworths' values, their customers come first, and the brand discusses a "Collaboration" or relationship between them and their consumers (Woolworths, 2022). Friske et al. (2022) discuss this relationship between consumer and retailer to influence one another, stating that retailers and consumers have a mutually dependent relationship and can influence one another to adopt certain protocols to maintain this status quo. Given this commitment to working together, Woolworths Millennial customers' awareness and perceptions of the brand's food waste management, along with resulting shopping and domestic behaviours in relation to these efforts, will be evaluated.

The insights derived from this study could also provide suggestions for deeper research into the nature of customers' resulting shopping and food waste management behaviours, which can be traced back to Woolworths as a meaningful brand (Havas, 2021). The aim of this study, however, given its limited scope to the present scenario under the correlational design (Bhandari, 2022; FormPlus, [n.d.]), is to assess whether a correlational relationship exists between Woolworths' (2021) food waste management protocols and their Millennial customers' perceptions and resulting behaviours, rather than what these behaviours are. The reason for this is that correlational research studies seek to derive unbiased, unopinionated information, extracted from quantitative questions. The collection of factual data offers the benefit of better understanding any potential correlation between Woolworths' (2021) food waste management and their Millennial customers' perceptions thereof, while making provision for possible external influences without direct interference or manipulation by the researcher (Bezuidenhout et al., 2014; Bhandari, 2022; FormPlus, [n.d.]).

For the past twelve years, the Havas group (2021) has studied and explored how brands work to tangibly improve peoples' lives on a functional level, enhance their consumers' personal well-being, and contribute to society at large. These are the criteria by which brands are evaluated to assess whether they may be considered a meaningful brand. According to Havas (2021), consumers expect more long-term value from brands, and this ties in with Kotler and Kartajaya's notion of Marketing 3.0 (n.d.), which emphasises a focus on human-centricity, rather than product- or customer-centricity. As such, brands must act in a manner that is best for their consumer, and not simply best for the brand's bottom line (Havas, 2021). As part of Havas' meaningful brands study (2021), the Group outlines three pillars of meaningful brand engagement, the third of which is Personal Benefits. Under this pillar, social and natural dimensions are considered, and in the context of the Millennial Perceptions Study of

Woolworths' food waste management, these are the dimensions of meaningful brands that will be focused on as well (Havas, 2021). This study will assess whether consumers agree that Woolworths upholds the meaningful brand criteria from a food waste management perspective, and the influence that Woolworths has on its customers to implement the same food waste management in their homes.

PROBLEM STATEMENT

The research problem of a study must be structured upon certain parameters and criteria. These five parameters are Answerability, Feasibility, Scope, Theoretical Value and Relevance, and will be discussed below (Bezuidenhout et al., 2014). The answerability of a research problem dictates that the problem be answerable or researchable by observing a phenomenon. In the context of the research topic mentioned above, the answer lies within the data to be collected from the study (Bezuidenhout et al., 2014). Feasibility requires that the answer to the problem be achievable from a time, cost, sample size and methodological perspective. Given the virtual tools available, the straightforward nature of a Positivistic and quantitative study compared to the alternatives, and the online contacts available, the Woolworths' customer perception problem is feasible in these regards (Bezuidenhout et al., 2014). The research problem's scope assesses whether the focus of the study is too narrow or broad (Bezuidenhout et al., 2014). For this reason, only the Millennial portion of the population will be focused on, and only one retailer has been chosen as a focal point, rather than conducting a side-by-side comparison of multiple brands (Allen & Spialek, 2018).

The theoretical value poses that solving the problem should add to the advancement of knowledge (Bezuidenhout et al., 2014). This study offers the potential to do so by indicating to Woolworths (and similar retail counterparts) whether their food waste management efforts are being noticed by Millennial consumers, and whether it is having an impact on them, and by extension, on the socio-economic and environmental situations within South Africa. Finally, the relevance of the research problem necessitates that it not be trivial in nature and should observe some form of phenomenon. Given that the overarching discussion of this study involves food waste in South Africa, and the effect of brand strategy in mitigating this problem, the research problem uncovered in this study is of clear significant relevance (Bezuidenhout et al., 2014). Using the above criteria, the problem statement (Bezuidenhout et al., 2014) for this research study can be phrased as:

“Food waste is a major global problem (FAO, 2017) and needs to be mitigated throughout the food supply chain. Retailers have a direct connection with consumers and can affect positive change by implementing better food waste management and urging customers to do the same (Friske et al., 2022).”

From this statement, the resulting research purpose for this study can be defined as:

“To ascertain whether there is a causal relationship between retail food waste management and Millennial consumer behaviour, based on consumer awareness and perception of the brand’s food waste management policies.”

For this Woolworths’ customer perception study, as mentioned above, a correlational design, forming part of the Exploratory research stance, will be taken. This allows the study to explore the following research question (Bezuidenhout et al., 2014):

“What is the relationship between Woolworths’ (2021) food waste management and Millennial customer perceptions and shopping behaviours in South Africa?”

This question can be further expanded to explore the outcome of this relationship, as follows:

“What are Millennial customers’ responses and behaviour as a result of their perceptions of Woolworths’ (2021) food waste management protocols?”

This expanded version of the research question explores more deeply the concept of Woolworths as a meaningful brand and its ability to influence customer behaviour (Havas, 2021), but falls outside the scope of this research study, and will serve purely as a suggestion for further research (FormPlus, [n.d.]). The research questions outlined above have been developed from the problem statement mentioned above, regarding Woolworths’ (2021) food waste management and the brand’s relationship with its consumers, resulting in its potential ability to influence its customers to adopt similar food waste management practices (Bezuidenhout et al., 2014).

This study will go about exploring the potency of Woolworths’ influence on its Millennial customers, and whether these consumers are aware of the brand’s food waste management efforts. Due to the nature of the research to be conducted in this study, an Empirical-Analytical cognitive interest has been selected (Bezuidenhout et al., 2014). This technical interest focuses on controlled observations and uncovering relationships; in the case of this study, the relationship between Millennial customer perception of Woolworths’ food waste management efforts and consumers’ resulting shopping and domestic behaviours will be assessed. The Positivist research paradigm will be cross-examined in further detail below (Bezuidenhout et al., 2014).

LITERATURE REVIEW

FOOD WASTE

Though human beings have been preserving food since 12 000 B. C. (Anon, 2019a), food waste remains a problem to this day, and is in fact worse than before, with the United States reporting triple the amount of food waste today versus fifty years ago (Anon, 2019b). Jere et al. (2021) state that on estimate, one third, or 33.34%, of the global food production is lost along the food supply chain or wasted. Ciulli, Kolk and Boe-Lillegraven (2020) make a similar statement, taken from the United Nations Food and Agriculture Organization (FAO, 2017), and add that a lack of connections between the phases of the food supply chain prevents further use of the wasted food at each phase. These phases, as well as the phase of the supply chain this project will focus on, will be discussed below. Jere et al. (2021) and Mihalčová et al. (2021) also discuss the contradiction between global food waste and scarcity, identifying the worrisome problem of inefficiency in the food production system. This in turn leads to a food scarcity that has gotten worse considering the Covid-19 pandemic (FAO, 2021). South Africans have suffered at the hands of this scarcity as well, with a total of nearly 40% of citizens experiencing some form of food insecurity throughout the country (Stats SA, 2022), despite the country's legislation regarding each citizen's Right to Food (Anon, 2014). The South African Practices dealing with potential solutions to this food insecurity will be reviewed in more detail later.

Ciulli et al. (2020) explain that wastage occurs due to missing relations or “structural holes”, which are the missing links or disconnectedness between parties within a network. Ciulli et al. (2020) subsequently conceptualizes the idea of “circularity holes” within a supply chain network. While Ciulli et al. (2020) focused on a developed country for the context of their study and do not consider developing countries such as South Africa, their concept of structural and circularity holes can be applied to the local scenario as well. An example of this missing relation in South Africa is the lack of peer-reviewed research available on Capetonian perceptions regarding retailers' stance on food waste and their management thereof. In the context of Woolworths, the missing relation, due to a potential lack of communication between Woolworths and its customers, could create a “circularity hole” that results in consumers not adopting food waste management practices due to poor awareness. This may indicate a lack of efficiency and sustainability within the food supply chain, specifically between the retailer and consumer stages in this case, and research needs to be conducted to ascertain the extent to which this exists in the Woolworths context. This research study will focus on the efficiency

of Woolworths' marketing messages regarding their food waste management, and the resulting ability to affect customer perceptions and shopping behaviours. Due to the abundant sources discussing the food waste problem, this topic has clearly become a major global crisis, and will become even worse by 2030 (Boston Consulting Group, 2022). This literature review will evaluate Waste Along the Food Supply Chain, Causes of Food Waste in the Retail and Consumer Sectors, The South African Context - along with the International Context - South African Attitudes Toward Food Waste, Food Waste Management, Customer Perceptions and finally, Central Tenets Guiding the Research.

Waste Along the Food Supply Chain

Petljak (2021) outlines the five phases of the food supply chain as, "production, storage and handling, processing and packaging, distribution on the market, and final consumption". The article also illustrates food loss and food waste throughout various stages, from Production and Processing to Retail and Food Services, ending off with the Consumer as the end user. At the Production phase, food is lost or damaged by extreme weather or pests, under-developed or unharvested crops, overplanting or spoilage. Espinoza-Tellez, Bastías Montes, Quevedo-León, Valencia-Aguilar, Aburto Vargas, Díaz-Guineo, Ibarra-Garnica, and Díaz-Carrasco (2020) explain that increases in urban population sizes, industry activity, demand for energy, generation of waste and greenhouse gas emissions are partly to blame for food waste at the agricultural phase of the food supply chain. They further claim that the agricultural and food sectors contribute to the large amounts of waste in societies and that the environmental impact thereof has become a major global issue. At the Processing phase, Petljak (2021) explains that waste is generated through the rejection of blemished or imperfect produce, as well as damage, mould or spoilage of crops. Morone, Falcone, Imbert and Morone (2018) corroborate this claim, but state further that food waste takes place predominantly at the end of the food supply chain, as will be evaluated next. They also discuss the notion of food sharing at the consumer phase, which would make for an interesting customer perception study of the feasibility of this concept but does not fit into the scope or limitations of this research study.

Petljak (2021) outlines in detail the occurrence of food waste in the Retail sector and will be addressed more deeply below. Essentially, damage due to packaging, unsold holiday produce, overstocking and spoilage contribute to food waste in this sector, while incorrect storage, plate waste, date label confusion and spoilage were cited as causes of food waste at the Consumer phase. In reference to these retail causes of food waste, Woolworths has released a Positioning Statement detailing their

efforts in food waste management, and this will be discussed further in Food Waste Management. Aschemann-Witzel (2021) shares pitfalls and actions to be taken at the retail phase to influence and improve customer perception of retailers in the context of food waste management, and this will be addressed in Customer Perceptions below. Interesting to note is that spoilage occurs at all phases of the food supply chain, and that by addressing the cause of this, and developing methods to combat this spoilage, the food waste crisis may be partially mitigated. This concept, however, falls outside the scope and limitations of this study, as will be addressed in Limitations later.

Due to the limited scope of this research study, as well as a lack of access to the first three phases of the food supply chain mentioned above, focus will be concentrated at the “final consumption” or “consumer” stage. This will ensure sufficient access to survey participants and help tackle food waste at one of the critical stages of the supply chain process. In addition, this end-of-the-chain focus addresses Morones’ et al. (2018) warning that food waste occurs mostly at the retailer and consumer end of the supply chain. It will also provide insight into the relationship between retailers and customers, as will be discussed later. Furthermore, Jere et al. (2021) discuss retailers’ ability to leverage their strategic positioning within the food supply chain to influence both the previous stages as well as the following phase. This suggests that retailers can force suppliers to adopt better food waste management practices, as well as influence consumers to do the same.

Conversely, while South African consumers are responsible for only 5% of food waste in the country, they hold the biggest influence over the other four phases of the food supply chain and can thus insist that all other phases adopt food waste management practices of their own (Reddy, 2020). It is thus clear that retailers, as well as their consumers, each occupy a vital role in the food supply chain, and each has influence over not only one another, but all other phases of this supply chain. As a result, it makes sense to focus on the relationship between these two entities, and the scope of this study makes it possible to derive meaningful insights, regardless of the findings of the research.

Causes of Food Waste in the Retail and Consumer Sectors

Cicatiello, Pancino, Blasi, Falasconi and Franco (2017) discuss the important role that retailers play in the field of food waste and the management thereof, highlighting evidence from in-store data, resources, conservation, and recycling. Petljak (2021) describes in detail the causes of food waste at each of the above supply chain stages, citing over-ordering produce from farms to please customers as one of the biggest contributors to food waste at the retail stage. Another factor resulting in retail

food waste, according to both Petljak (2021) and Jere et al. (2021), is the perceived inferior quality of produce, speaking to potentially unreasonable, unrealistic and unsustainable standards set by either the retail outlet or consumers themselves. This is particularly important in the context of Woolworths and their customers, who each promise and expect superior quality, respectively (Woolworths, 2022).

Petljak (2021), along with Mihalčová et al. (2021) and Morone et al. (2018), state that households generate the largest amount of food waste, and Petljak (2021) explains further that this wastage is most costly at the final stage. Adding to this food waste at the consumer level is the concept of complicated or ambiguous labelling of food, with consumers getting confused between the sell-by, use-by, and best before dates (Cole, 2017). This in turn leads customers to rejecting produce on the shelf because of its sell-by date, when in reality this has nothing to do with the quality of the food and is intended instead as an internal message for the retailer and staff (Petljak, 2021). In their Positioning Statement (2021), Woolworths mentions these and other issues that the brand is committed to mitigating and will be examined below. Given the food insecurity suffered by 40% of South Africans (StatsSA, 2022), it is necessary to address this costly wastage to strive for a more sustainable domestic lifestyle. The South African Context will be examined next.

FOOD WASTE MANAGEMENT

While the above research on Food Waste paints a grim picture of global and local realities, efforts are being made on both fronts, and practices implemented, that aim to mitigate the food waste abroad and at home alike. What follows is a review of the extant literature highlighting these food waste management policies and practices, first from an international perspective and then from the South African context.

International Practices

den Boer, Obersteiner, Gollnow, den Boer and Sándor (2021) explore the use and optimisation of kitchen waste in the production of sustainable and renewable energy sources in Europe, which in turn reduces the emission of greenhouse gases. This research offers great promise in the South African context for multiple reasons. Firstly, by implementing similar practices, South African retailers such as Woolworths could help the country navigate its current power issues, thereby strengthening their meaningful brand status (Havas, 2021). Additionally, Woolworths' customer perceptions of such activity may be positively influenced, and the brand's potential for positively affecting the perceptions of consumers needs to be determined to assess the potential financial benefits of adopting these practices and thus gaining more environmentally conscious customers. In their study, Mihalčová et al. (2021) discuss the rapidly growing and unsustainable relationship between poverty and food waste, claiming that preventing food waste can help reduce global poverty, supporting Jere et al. (2021)'s argument of the same point. Mihalčová et al.'s (2021) study assessed the existence of poverty in various EU countries in relation to food treatment, to ensure sustainable growth. Their research found that households generate the highest proportion of waste (53% of the total supply chain), and in large quantities as well.

While domestic food waste in South Africa accounts for only 5% of the country's total wastage (Reddy, 2020), the impact that consumers have on retailers, from a meaningful brands perspective (Havas, 2021), may force retailers to reconsider their wastage and adopt more sustainable processes. (Mihalčová et al., 2021) further states that food waste is a result of domestic lifestyle, indicating that a mentality shift may mitigate food wastage within many households. This creates an opportunity to trial this notion in the South African context by educating consumers of the importance of effective food waste management, from a domestic level and further up the food supply chain. In the case of

Woolworths and its customers, this study aims to ascertain the brand's level of influence on its consumers' perceptions and resulting shopping behaviours, to assess whether Woolworths can encourage customers to adopt more sustainable domestic practices, thus combating food waste at the Consumer level of the food supply chain.

South African Practices

South Africans waste more food than other sub-Saharan African or South/South-East Asian countries (Oelofse, Muswema, & Ramukhwatho, 2018). This is despite the implementation of landfill bans by which all waste generators must abide, according to the Western Cape Government (GreenCape, 2017). In addition to these bans, businesses and other entities generating organic waste are currently urged to submit plans outlining the management of their wastage, known as Integrated Waste Management - or IWM - plans, outlining how they will be reducing the amount of organic waste ending up in landfills, with the goal of complete elimination of this practice. Godfrey and Dambuza (2006), who studied the implementation of these IWM plans, claim that no data was available for the adequacy of the plans, and they highlighted that at a municipal level, under half of all municipalities surveyed have yet to implement these plans, and appear to be delaying until forced to do so.

According to Jere et al. (2021), South Africa has implemented various legislation governing food waste management, such as the National Environmental Management Act of 1998, the National Environmental Management Waste Act of 2008, and the National Waste Management Strategy of 2020 respectively. Considering the existing laws in the country, Reddy's (2020) discussion of poor clarity regarding Woolworths' policies on food waste management is noteworthy. In response to this, Woolworths has issued a position statement outlining their commitment to combating food waste. This stance is impressive from Woolworths, considering that it pre-dates Jere et al. (2021)'s article which outlines the causes of food waste and highlights similar causes that Woolworths had already vowed to address prior to the article being published. What remains to be assessed is whether Woolworths customers know about this position statement, and what their thoughts are on the matter. In addition, it is necessary to determine whether these efforts would influence consumers to shop at Woolworths more frequently, and whether these customers would themselves be influenced to adopt food waste management processes within their homes as well.

Jere et al. (2021) and Reddy (2020) each mention the United Nations' Sustainable Development Goals for better food security and reduced food waste. Reddy (2020) goes further to discuss Pick 'n Pay and

the Shoprite group's lofty food management goal of a 50% reduction by 2030 and criticises Woolworths for their apparent lack of official food waste management policies. While Woolworths has since released a position statement outlining their stance on food waste, as mentioned above, it is precisely due to such allegations that customer perceptions and awareness of Woolworths' food waste management efforts need to be ascertained, to determine the reach and efficacy of Woolworths' communications.

In their positioning statement, Woolworths addresses various causes of food waste, and the practices the brand has put in place to manage their food waste across their entire supply chain. These include Sustainable Farming, Packaging, On-pack Labelling and Customer Guidance, Surplus Food, Research and Transparency in their Reporting. This comprehensive positioning statement addresses the issues raised by Petljak (2021), Mihalčová et al. (2021), Jere et al. (2021), Morone et al. (2018) and Cole (2017), illustrating that Woolworths is serious about food waste management. Whether their customers are aware of this, however, and what these consumers' perceptions are of Woolworths' food waste management and sustainability practices, remains unknown, and research is required to uncover these perceptions. A further interesting concept to research is whether consumer perceptions would influence shopping habits, thereby translating into increased revenue for a retailer, and this concept will be explored further in Customer Perceptions.

Chakona and Shackleton (2017) conducted research on the domestic food waste in three mid-sized towns to the East of South Africa and uncovered helpful insights about the type of food waste most generated by residents of these towns. Cronjé, van der Merwe and Müller (2018) studied the food waste in Kimberley, South Africa, discovering that a lack of meal planning contributed to the waste problem in the area. While South Africa is evidently becoming more aware of its food waste problem, there is a lack of research done on how South African consumers, specifically in Cape Town, respond to the management of food waste or the efforts of brands to raise awareness about this critical issue. Existing research theories regarding customer perceptions on other topics must thus be combined with theories regarding food waste to fully develop this research study.

New studies must also be conducted using this combined approach to assess the impact of positive and negative consumer perceptions around brands' food waste management attempts, along with the impact of low or no awareness by consumers of these brands' efforts. These potential positive or negative correlations will be explored later. The South African context must also be compared to the global scenario to better understand our position in relation to our international counterparts. This notion will be discussed next. Due to the limited scope of this study, only the Millennial portion of the

population will be assessed (Allen & Spialek, 2018), and the food waste management efforts of Woolworths Foods will be used as the subject of consumer perceptions (Havas, 2021).

CUSTOMER ATTITUDES AND PERCEPTIONS

Aschemann-Witzel (2021) discusses the pitfalls of food waste in retail, as well as the actions to be taken, while challenging understandings around packaging and pricing. According to the article, retailers can improve their customers' perceptions without compromising on business objectives. While the research is valuable in the mitigation of food waste and guarantees the success of companies amidst their food waste management practices, it does not consider the depth of impact these practices have on customer perceptions, or what these customers' resulting shopping and domestic behaviours will look like. There thus remains a gap in the knowledge of the effects retailers' food waste management policies and practices have on consumers, and this research study aims to address this issue. Furthermore, this is in line with Jere et al.'s (2021) suggestion of further research into customer perceptions of retail brands' food waste management practices, in reference to the relationship between brand and customer, as seen in Woolworths' (2022) Values.

There is a lack of peer-reviewed research on the topic of Capetonian attitudes and perceptions of food waste and the management thereof, compared to the wealth of information available in the international context. As a result, this literature review attempts to piece together data and data collection strategies from other studies - some of which may not have been peer-reviewed - regarding similar topics, or that utilise similar or complementary approaches to the Research Paradigm. In this way, these studies can help develop this one, regardless of their credibility or the outcome of their research. One such study, conducted by Manyangadzo and Magadzo (2019), assessed perceptions around the waste management hierarchy of fast-food retailers in Nelson Mandela Bay. Their study discussed various waste prevention strategies and used the concept of a waste hierarchy to evaluate perceptions of the town's inhabitants.

Another perception study, led by Zepeda and Balaine (2017), found that participants in their American pilot study displayed highly accurate perceptions of food waste's negative environmental impacts, but overestimated the financial cost of the food waste wastage examples shown to them. This fiscal overestimation led the researchers to assume that students may change their perceptions negatively regarding the impact of food waste should they discover that it is not as costly as they had initially supposed. One of the insights derived from the study is that perceptions around food waste, while controlled in part by ethical viewpoints, are also largely price-sensitive, linking back to the initial food insecurity in South Africa, mentioned in the Study Context above. Their study, therefore, though an international one, provides helpful insights into researching South African perspectives of food waste in this Woolworths study. Another such study was conducted by Friske et al. (2022) regarding religious

peoples' perspectives of retailers. While also an international study, it provides helpful guidelines for this study, as do Manyangadzo and Magadzo (2019) and Zepeda and Balaine (2017), each mentioned above. Further guiding the development of this research study are the Central Tenets and creation of various hypotheses to test, which will be outlined next.

CENTRAL TENETS GUIDING THE RESEARCH

When developing a research study using the Positivist paradigm with a Correlational research design, the focus is placed exclusively on objective observations, collecting quantitative and factual data, and searching for correlational relationships (Asamoah, 2014; Bhandari, 2022; FormPlus, [n.d.]). The variables in these relationships can have an either positive, negative or zero correlation to one another (Bhandari, 2022). In the case of this study, the aim is to assess whether a positive correlation exists between Woolworths' (2021) food waste management protocols and their Millennial consumers' perceptions thereof, as well as resulting behaviours. Due to the limited scope of this study, consumer behaviours will not be evaluated deeply, and will simply be assessed based on whether a change can be expected, according to participants' responses.

When seeking to uncover correlations, hypotheses need to be developed and either proved or disproved by the research findings (Bezuidenhout et al., 2014). These must relate to the research question(s), defined above as:

“What is the relationship between Woolworths' (2021) food waste management and Millennial customer perceptions and shopping behaviours in South Africa?”

Two main variables are being tested in this study - namely customer perceptions and customer behaviours. The behaviours variable is then separated into two sub-variables: customer shopping behaviours and customer domestic behaviours. Null hypothesis A (H_{0A}) for the perceptions portion of this research study will indicate a zero correlation between Woolworths' food waste management policies and customer perceptions (see Number of Null Hypotheses, 2017), and can be defined as:

H_{0A} - Woolworths' food waste management has no effect on customers' perceptions of the brand, according to survey findings.

A positive correlation between Woolworths' food waste management and customer perceptions, suggesting that customer perceptions of the brand have improved because of learning about or being aware of these policies, would be indicated by variable hypothesis one A (H_{1A}) (Bezuidenhout et al., 2014), and stated as:

H_{1A} - Woolworths' food waste management has a positive effect on customers' perceptions of the brand.

A negative correlation for consumer perceptions may be represented by variable hypothesis two A (H_{2A}), and can be phrased as:

H_{2A} - Woolworths' food waste management has a negative effect on customers' perceptions of the brand.

Null hypothesis B (H_{0B}) for the resulting shopping behaviours portion of this study will indicate a zero correlation between Woolworths' policies and customer shopping patterns, and can be written as:

H_{0B} - Knowledge of Woolworths' food waste management has no effect on customers' shopping behaviours, according to survey findings.

A positive correlation between the brand's food waste management and customer shopping behaviours, indicating that customers would shop at Woolworths more frequently in support of their policies, would be portrayed by variable hypothesis one B (H_{1B}), and shown as:

H_{1B} - Knowledge of Woolworths' food waste management has a positive effect on customers' shopping behaviours.

Likewise, a negative correlation for consumer shopping habits, titled hypothesis two B (H_{2B}), would be written as:

H_{2B} - Woolworths' food waste management has a negative effect on customers' shopping behaviours.

Null hypothesis C (H_{0C}) will represent a zero correlation between Woolworths' policies and customers' domestic behaviours, and defined as:

H_{0C} - Knowledge of Woolworths' food waste management has no effect on customers' domestic behaviours, according to survey findings.

A positive correlation between the brand's food waste management and customer domestic behaviours, illustrating that Woolworths has influenced customers to adopt their own food waste policies at home, would be portrayed by variable hypothesis one C (H_{1C}), and shown as:

H_{1C} - Knowledge of Woolworths' food waste management has a positive effect on customers' domestic behaviours.

Conversely, a negative correlation for consumer domestic behaviours, titled hypothesis two C (H_{2C}), would be written as:

H_{2c} - Woolworths' food waste management has a negative effect on customers' domestic behaviours.

These hypotheses will inform the development and formulation of survey questions which will be outlined in Data Collection below, and each hypothesis will be assessed and either proven or disproven in Findings and Interpretation of Data, after a cross-referencing of the data collected.

RESEARCH METHODOLOGY

POSITIVISM

The Positivist research paradigm disregards qualitative data based on feelings and opinions in favour of objective knowledge, based instead on fact (Bezuidenhout et al., 2014). Positivism is rooted in control and is different to the Historical-Hermeneutic cognitive interest which attempts to reach understanding, rather than discover factual relationships. Striving for objective knowledge in a research study helps to ensure that the data collected is unbiased, be it on the part of survey respondents or the researcher(s) conducting the study (Bezuidenhout et al., 2014). This is true for the current study as well, in seeking to uncover the factual cause and effect relationship between Woolworths' meaningful food waste management and their customers' awareness and perception thereof, along with resulting shopping and domestic behaviours. The reasons for this will be explored below.

Positivism is focused on gaining objective knowledge, the benefit of which is uncovering a universal "truth". This approach is criticised by Interpretivists (who follow the Historical-Hermeneutic cognitive interest), suggesting that one universal truth is impossible (Bezuidenhout et al., 2014). Given the topic of food waste for example, one may argue that it is a subjective problem that has many causes and, as a result, no single solution. This paper discusses the notion of a food waste "lifestyle" in the Causes of Food Waste section, which further points toward a more subjective approach. The reality, however, is that food waste is a global problem that needs to be managed (FAO, 2017). While the managing methods may vary, the objective truth is that something must be done to manage this crisis. A Positivist approach would thus help to ensure objectivity in the research collected by this study (Bezuidenhout et al., 2014). While it will not focus directly on the causes of food waste and will instead evaluate the customer perceptions of Woolworths' food waste management, the data collected will help explore the factors influencing customers' shopping decisions and provide retailers such as Woolworths an explanation on how to change their marketing messages, if necessary (Anon, 2022).

Early Positivists believed that "humans could improve their own world and become better people through educating themselves." (Bezuidenhout et al., 2014:24). This view was held during The Enlightenment, and symbolizes where South Africa currently finds itself, in the infancy of its food waste management journey (Jere et al., 2021). As mentioned above, a Positivist approach was elected for this study to assess whether customer awareness and positive perceptions of Woolworths'

meaningful food waste management might lead consumers to incorporate better food waste management within their homes. In addition, a Positivist approach would allow focus to be placed on the facts that drive customers' perceptions, rather than their opinions. This would further guide Woolworths towards managing their marketing messages regarding their food waste management through actionable steps guided by unbiased facts, rather than sentiment (Bezuidenhout et al., 2014).

Within the Positivist research tradition exists Correlational studies, which attempt to uncover one of three directions in its analysis. These are Positive, Negative or Zero Correlation (Bhandari, 2022; FormPlus, [n.d.]). A positive correlation suggests that there is a directly proportional link between the two (or more) variables at play within the study, while a negative correlation identifies an inversely proportional correlation. A zero correlation implies that no association exists between variables in a study. Furthermore, a correlational study does not evaluate future predictions and focuses solely on present reality (Bhandari, 2022; FormPlus, [n.d.]). In the context of this research study, this reality focuses on current Millennial Woolworths customers, as has been introduced above, and will be expanded upon below.

To better understand the larger context of the Positivist research paradigm, the five research positions need to be considered. Epistemology deals with the study of knowledge, Ontology focuses on the study of reality, Metatheory provides direction through evaluating and exploring theoretical lenses, Methodology is the guiding system for solving the research problem(s), and finally, Axiology studies values and value judgements (Bezuidenhout et al., 2014). Each of these positions and their relationship to Positivism will be explored in this section. As mentioned above, Positivism concentrates solely on objectivity, fact, and causal relationships, disregarding subjectivity, feelings and opinions. From an epistemological position, Positivism seeks to uncover knowledge regarding these causal relationships to predict and control events. Action can subsequently be taken to provide for these predictions (Bezuidenhout et al., 2014). For this research study, Woolworths' food waste management efforts are the objective reality, and what will be tested is the perceptions of Woolworths' customers regarding these efforts, to make predictions about future consumer shopping habits based on the data collected. In striving to discover these predictions, objective and scientific observations need to be made by developing and testing hypotheses. Evidence must then be found to reject or support the hypotheses developed. Due to this process, controlled questions must be asked, and responses cross-referenced to collect accurate data samples. This is achieved through creating closed-ended questions to assess causal and correlational relationships that form the cornerstone of the Positivist paradigm (Bezuidenhout et al., 2014).

The ontological position of Positivism, as introduced above, is to ascribe to one objective reality, governed by scientific laws (Bezuidenhout et al., 2014). This makes measuring the data collected possible and once again ensures order and control over the subject matter. Concepts such as regularity in data sets make the predictions mentioned above more achievable, and action can thus be taken. Furthermore, by controlling the research environment and focusing on only one reality, the cause(s) uncovered in the research can be regarded as having the same effect on everyone and everything related to the study. For this reason, Positivism has been chosen for this project, as actionable steps can be taken based on the Woolworths customers' perceptions of the brand due to its food waste management (Bezuidenhout et al., 2014). This stance disregards notions such as food waste due to domestic "lifestyle" (discussed in Causes of Food Waste).

From a metatheoretical position, Positivists seek to develop generalisations regarding the cause-and-effect relationship formed between the variables of a study (Bezuidenhout et al., 2014). As mentioned above, Positivism relies on one universal truth based on objective fact and scientific law or truth. As such, the theories used in a Positivist study must be void of all opinion or subjectivity, focusing instead solely on the universal causal relationships uncovered in the research. From there, hypotheses can be formed and tested for validity and reliability, and thus a theory can be proposed. Revisiting the idea of a causal relationship, the Positivist paradigm posits that the appropriate cause (Woolworths' meaningful food waste management) will result in an automatic effect (positive customer perceptions of the brand) and actionable steps can thus be taken (Bezuidenhout et al., 2014). In the context of this study, those steps may include Woolworths distributing marketing messages regarding their food waste management to reach a larger audience, gaining more consumers, and encouraging them to manage their domestic food waste as well.

Regarding the methodological position of Positivism, it must be reiterated that Positivists conduct empirical research to collect data through direct and objective observations (Bezuidenhout et al., 2014). In striving to uncover the causal relationships between variables in the study, Positivism relies on quantities, numbers or figures, thereby ensuring objectivity and factual data collection. Considering this, quantitative questions are used as the sole strategy for collecting data. The research methods adopted in Positivist studies must (as highlighted previously) ensure objectivity and must be repeatable to ensure the controlled questions discussed above. For the Woolworths study, a quantitative survey will be created on Google Forms so that data collection can be closely observed, monitored and controlled (Bezuidenhout et al., 2014).

The axiology of Positivism is objective, meaning that research must be void of personal values or bias (Bezuidenhout et al., 2014). Honesty, sincerity and integrity are thus needed from survey respondents

to ensure trust in the data and the uncovering of the universal truth introduced above. This is especially necessary in the Woolworths study as consumers will need to be truthful about their genuine perceptions of the brand and its meaningful status so that predictions can be made and actionable steps taken (Bezuidenhout et al., 2014; Havas, 2021). Any customer opinions of the brand outside of their perceptions regarding Woolworths' food waste management would cloud the data and produce unreliable results. This would in turn affect the reliability and validity of the study, which will be evaluated next.

RELIABILITY AND VALIDITY

According to Bezuidenhout et al. (2014), reliability requires consistency, ensuring that various researchers might successfully conduct the same research study using the same instruments and derive the same results and outcomes. A Positivist, quantitative research study makes this possible as the questions asked are closed-ended and disregard the qualitative opinions of respondents, thereby encouraging the collection of factual data. The Woolworths' Millennial Customer Perceptions and Behaviour study further guarantees reliability of research findings as it eliminates researcher participation due to the online distribution and automatic design of the survey, as will be discussed later (Bezuidenhout et al., 2014).

To prevent sources of error that would compromise the reliability of the study, the inclusion of headings, subheadings and descriptions will be added to each section of the survey to explain to questionnaire respondents – as well as alternative researchers utilising the same study – what the questions require of them. This would thus ensure generalisation of the research study and allow any researcher to use the study and its instruments (Bezuidenhout et al., 2014). In the context of this research study, however, the limited scope and small sample size hinder the accuracy of the data, and thus the reliability as well. Trends and patterns will emerge, and insights derived, but when dealing with a sample set of only 20 to 50 people, these insights will either be limited, untrustworthy, or both. Care must thus be taken when analysing and interpreting data to emphasise that trends and patterns observed in the findings refer only to survey participants and cannot be assumed for the entire Woolworths' Millennial customer population (Bezuidenhout et al., 2014).

The questions in the Woolworths' survey have been designed to be not only reliable, but valid as well (Bezuidenhout et al., 2014). Internally, this was done by matching the overarching research questions mentioned above to the ones asked within the survey and ensures that the same instrument can be used by different researchers on different participants within the same demographic and derive similar results. Furthermore, the questions asked in the survey are externally valid as they consider the unique attributes of Millennials and how they are generally affected by phenomena such as food waste (Anon, 2020; Bezuidenhout et al., 2014).

Factors affecting the internal validity of the study are possible oversights during the development and creation of the survey that might lead to certain important questions being neglected, thus limiting the insights uncovered. Externally, Millennial attributes catered to in the survey may have been over-assumed or generalised in a manner that does not accurately reflect the Millennial population surveyed. This is exacerbated by the restrictions placed on the number of survey questions permitted

to be asked, and this will in turn limit the insights and recommendations available as well (Bezuidenhout et al., 2014). These Limitations will be discussed later.

DATA COLLECTION

In 2016, Millennials made up 27% of the South African population, or 14 million individuals (Anon, 2017). While it is unclear how many of these Millennials are current Woolworths shoppers, the target audience for this research study would be each Millennial Woolworths shopper (Bezuidenhout et al., 2014). Due to the time and budget constraints with which this study is faced (to be explored further in Limitations below), the accessible portion of the Woolworths Millennial population will be all individuals within the target population (Bezuidenhout et al., 2014) who have liked Woolworths' Facebook page or followed the brand on Instagram or Twitter (Facebook, 2022; Instagram, 2022; Twitter, 2022). Should this prove unsuccessful, the range will be extended to the limited number of Millennial Woolworths shoppers available on private Facebook, Instagram and WhatsApp pages and groups. The intention is to reach a minimum of 50 Millennial Woolworths shoppers by sharing the Google Forms survey and consent form through direct online messages, and the target is to receive at least 10 to 20 responses from which to derive findings and insights.

Due to the limited scope of this research project, as well as general limitations – as will be discussed more deeply below – along with the lack of statistics available on the segmentation of Woolworths' Millennial customers, the sample elements being evaluated in this study may not be representative (Bezuidenhout et al., 2014). A sampling error calculation will thus not be conducted, as the study is forced to accept responses from any willing Millennial Woolworths shopper who responds to the online posts and communications sent out. The initial sampling approach adopted will be a non-probability, purposive sampling approach specifically targeting Millennial Woolworths shoppers throughout South Africa, of any gender, who have liked or followed Woolworths' social media pages. Should this prove unsuccessful in collecting data, a convenience sampling method will be selected as a contingency to collect data from any private individuals willing to complete the research study survey shared with them online (Bezuidenhout et al., 2014).

While non-probability sampling is not typically preferred for quantitative studies, this project is different in that it takes an exploratory, correlational research stance that focuses on current facts and does not make future predictions, or generalisations about the population at large (Bezuidenhout et al., 2014; Bhandari, 2022; FormPlus, [n.d.]). The study's contingency of convenience sampling can be criticised for introducing potential bias in that respondents are known personally. Given the quantitative nature of the study, however, the risk of bias is reduced as responses are anonymous and the survey collects only facts that can be provided by participants in private, thus disregarding opinions and alleviating any possible need to lie or embellish information under duress (Bezuidenhout et al.,

2014). The survey used for collecting responses has been designed on Google Forms and is made up of closed-ended, multiple choice questions. The Google Forms survey is broken up into various sections to make it easier to answer - as well as analyse. As discussed, the distribution method will be via online messaging and communications, across Facebook, Instagram, Twitter and WhatsApp, and collection will be automated via Google Forms.

Regarding the actual questions formulated for the survey, participants are first asked whether they consent to their responses being collected and assured that the survey is completely anonymous and that their identity will not be revealed. Next, they are asked to select their age range and are provided options which are separated into the various generations. This is done to ensure that the following questions are answered only by Millennials, and the survey has been designed to redirect any respondents in other age ranges to the end of the questionnaire. The remaining Millennial respondents are then asked how frequently they shop at Woolworths, from “multiple times per week” to “never”. Once again, any respondents who answer “never” are taken to the end of the survey to ensure that only Millennial Woolworths customers answer the remaining questions, from which the main analysis will be conducted.

Survey respondents are asked how important food waste management and reduction are to them and are given a sliding scale from “very important” to “not important at all”. The sliding scale is provided to limit the types of responses given and to ensure the closed-ended, quantitative nature of data collection. Participants are also asked whether they are aware that Woolworths currently employs food waste management practices throughout their supply chain, with radio buttons for “yes” and “no”. Because some customers may be aware of the existence of Woolworths’ food waste management practices, but not what those are specifically, an extract is taken from the Commitment portion of the Woolworths Positioning Statement on Food Waste (2021) and shared on the survey for respondents to read, along with a link directing them to the full Statement should they wish to read it.

Once shown the extract, they are asked how they now perceive the Woolworths brand, considering the previous Commitment statement, and are provided with a sliding scale from “more positively than before” to “more negatively than before”. This helps to assess what effect - if any - Woolworths’ food waste management has on customer perceptions of the brand and will help to test the perception-based hypotheses developed above and reviewed below. Linked to the perception question, respondents are asked what their thoughts are on Woolworths developing these food waste management policies and are given the choice between “these policies are necessary” to “these policies are unnecessary” on a five-point sliding scale. This question is relevant as it assesses whether

each Millennial Woolworths customer actually cares about food waste management policies and provides a possible reason as to why their perceptions may - or may not - have been influenced. This will be done by using a cross-referencing method in Microsoft Excel and will be detailed in the following section.

The final section of the survey focuses on consumer shopping and domestic behaviours given their awareness of Woolworths' food waste management policies and practices. Consumers are asked whether they would shop at Woolworths more often, purely because of the brand's food waste management policies, and are once again provided with a five-point sliding scale from "definitely not" to "definitely". Lastly, they are asked how these policies and practices of Woolworths have influenced them to adopt more food waste management practices of their own at home and are provided with six options. The reason for using the sliding scales highlighted above and the six options, along with the analysis outline of the customer perceptions and behaviour questions, will be detailed next. A visual snapshot of the entire Google Forms survey is attached in Annexure A.

DATA ANALYSIS

Once the Google Forms survey has been shared with respondents – using either purposive or convenience sampling – and the data has been collected, Google Forms will provide automated data reports (Bezuidenhout et al., 2014). From these, analysis can be conducted on each of the questions mentioned previously to uncover patterns and trends (Bezuidenhout et al., 2014). Potential correlational relationships between Woolworths' (2021) food waste management and customer perceptions, as well as resulting shopping and domestic behaviours can also be examined. As mentioned above, the unit of analysis is individuals and the sample size (due to limited time and other resources) will be up to 50 Millennial Woolworths shoppers, with an intended response rate of 10 to 20 respondents (Bezuidenhout et al., 2014).

Using Google Forms' redirection feature, any respondents who fall outside the 1981 – 1996 age range will be automatically navigated to the end of the survey. This will ensure that all survey questions are answered by only the Millennial target segment. Survey participants will be asked how often they currently shop at Woolworths, and later, whether they would be willing to shop there more frequently because of the brand's food waste management practices. Pivot tables in Microsoft Excel will then be used to cross reference responses and uncover potential trends, patterns and insights. Due to the anonymity of responses, timestamps will be used to prevent confusion between answers, and this is generated automatically by Google Forms when exporting the data to Excel.

An extract from Woolworths' (2021) Food Waste and Food Security Position Statement will be shared within the survey, and participants will be asked about their perceptions thereof. One of the questions asked in the survey is: "How do you perceive the Woolworths brand, given the Commitment statement [shown] in the previous section?" Respondents are provided a five-point scale ranging from "More positively than before" to "More negatively than before". Respondents who select the former will indicate that a strong positive correlation exists between Woolworths' food waste management and customers' resulting perceptions of the Woolworths brand, while the latter will indicate a strong negative correlation (Bezuidenhout et al., 2014). To assess Woolworths' impact on customers' shopping behaviours, participants are asked: "Will you shop at Woolworths more often, purely because of their food waste management policies?" for which another five-point scale is provided, also indicating the range from strong positive to strong negative correlations (Bezuidenhout et al., 2014).

Finally, to evaluate customers' domestic behaviours because of Woolworths' food waste management, respondents are asked: "How have Woolworths' food waste management efforts influenced you to adopt more food waste management practices of your own at home?" This time, six options are provided, rather than five. Each point still represents the range from strong positive to strong negative correlation, but the last two options toward the strong negative correlation provide different reasons for Woolworths not having an impact on customers' domestic behaviours (Bezuidenhout et al., 2014). The first (Woolworths didn't influence me at all - food waste management is not a priority) indicates that food waste is not important to the respondent, while the subsequent reason (I've been managing my domestic food waste perfectly without Woolworths' influence) suggests that the respondent was not influenced by Woolworths (2021), but by an alternative source. For a visual snapshot of the full data report generated by the Google Forms survey, refer to Annexure B.

FINDINGS AND INTERPRETATION OF DATA

The Woolworths' Millennial Perception and Behaviour survey was completed by a total of 31 respondents, 26 of whom constituted the Millennial target segment. A purposive sampling approach was attempted, but proved unsuccessful, and the convenience sampling contingency was thus utilised. Regarding respondents' Woolworths shopping routines, the survey asked, "How often do you buy any type of food at Woolworths?" The results were fairly spread out, with a total of more than 60% – 17 respondents combined – selecting once a month or more frequently, suggesting that the majority of participants are reasonably familiar with the Woolworths brand, and choose the brand frequently for their food shopping. For the same question, none of the respondents selected "Never" as an option and would have been directed to the end of the survey if they had. This would ensure that participants who were not Woolworths shoppers would not be able to answer the questions, thus manipulating the data and producing unreliable insights (Bezuidenhout et al., 2014).

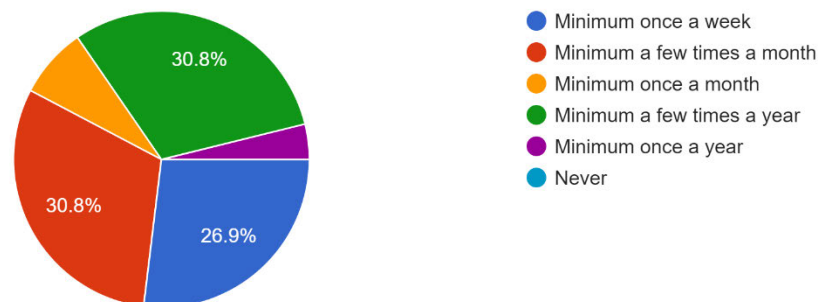


Figure 1: Frequency of shopping at Woolworths (26 responses)

Almost three quarters of the sample indicated that food waste management and reduction were important or very important to them, with 7 of the 26 individuals selecting a neutral or negative stance. This would suggest that most Millennial Woolworths shoppers surveyed take food waste management and reduction seriously.

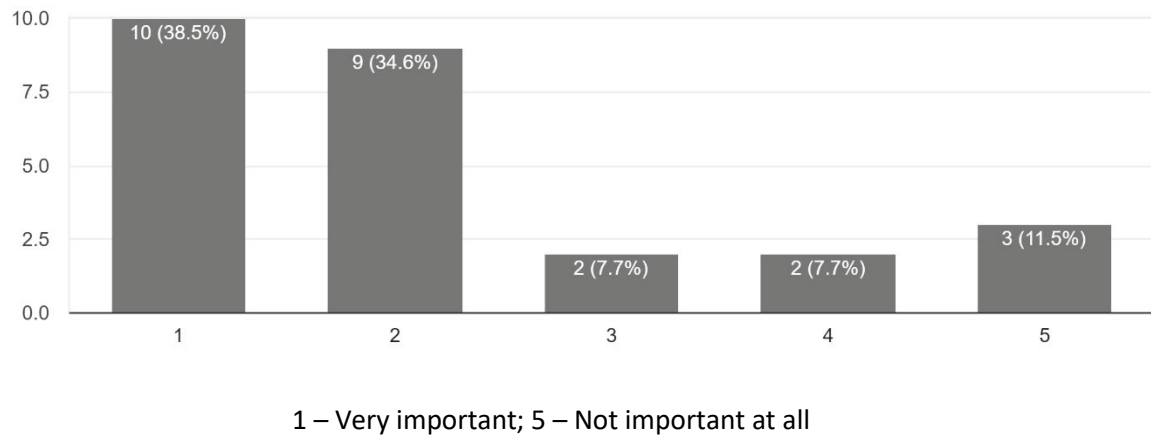


Figure 2: Importance of food waste management and reduction (26 responses)

When asked whether respondents were aware that Woolworths has food waste management policies in place, a total of 61% indicated that they were unaware of this, highlighting the need for Woolworths to advertise this fact to the public at large, based on the pattern that emerged from the data of the survey. This statistic also confirms the presence of a circularity hole in Woolworths' awareness messages, proposed above in the Food Waste section (Ciulli et al., 2020). The survey then displayed an extract from Woolworths' (2021) Food Waste Management Positioning Statement and asked whether respondents perceived the brand more positively than before as a result, to which approximately 75% selected "Yes" to some degree and the other 25% remained neutral, with none selecting "No". It would thus reassure Woolworths to know that their food waste management efforts are being perceived positively by most of their customers surveyed - according to the data set - even though the brand needs to raise more awareness about their policies. This is further supported by the nearly 85% of respondents who agree that these policies are necessary, with the remainder opting for a neutral stance, rather than claiming that the policies are unnecessary. This indicates that most Woolworths' Millennial customers who participated in the survey understand the importance of food waste management at a retail scale.

OUR COMMITMENT

As part of our Good Business Journey, we are committed to finding ways to reduce food waste and promote food security. This includes, but is not limited to, our surplus food programme in stores and across our supply chain – from our farms and factories – working in partnership with our suppliers.

We adopt the food waste utilisation hierarchy, which prioritises food utilisation and food waste avoidance or reduction in the first instance, and secondly the redistribution of surplus food for human consumption. Our goal is to ensure that no edible food should end up in a landfill.

- WOOLWORTHS (2021)

For more information, you can visit:

https://www.woolworths.co.za/images/elasticera/New_Site/Corporate/Woolworths_Food_Waste_Position_Statement.pdf

Figure 3: Woolworths Positioning Statement (extract)

When asked whether customers would shop at Woolworths more often, purely because of the brand's food waste management policies, the results were as follows: 38.4% indicated some level of willingness to support the brand more frequently due to their food waste management policies, while nearly 38.5% remained undecided and a further 23% suggested that they would not support the brand more regularly.

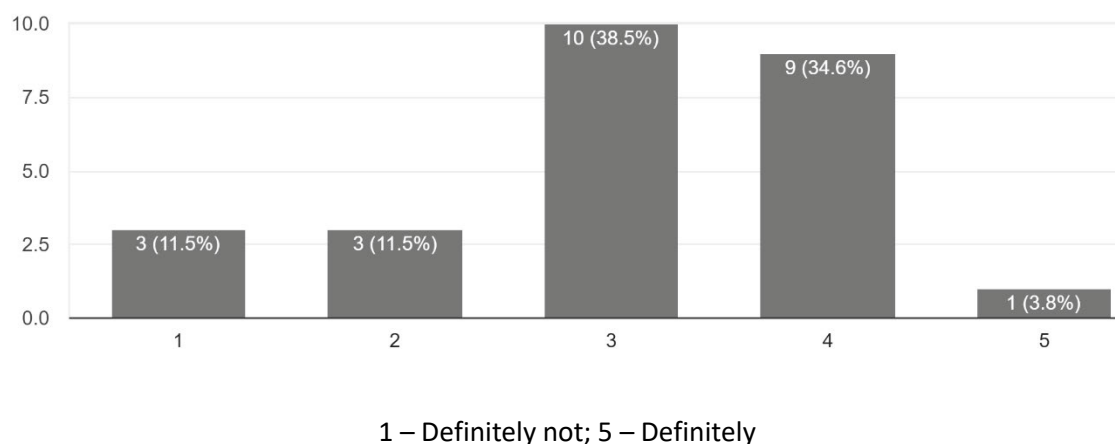


Figure 4: Willingness to shop at Woolworths more frequently due to food waste management practices (26 responses)

Finally, when asked about the influence Woolworths' food waste management has had on consumers, a total of 11% indicated a level of influence, while 25% of respondents felt neutral about Woolworths' influence on them, and less than half of participants (42.3%) claimed that they had been managing their food waste perfectly well without Woolworths and were not influenced by the brand at all. This statistic shows that Woolworths' efforts to implement food waste management protocols throughout their business have managed to influence approximately 25% of their Millennial target segment, according to the survey results. Due to the lack of access to Woolworths' conversion targets for their marketing messages around their food waste management practices, it is impossible to assess whether the above statistics indicate a successful awareness campaign, and this will form part of the Limitations of this study.



Figure 5: Woolworths' influence on consumer domestic food waste practices (26 responses)

The above statistics provide a summary of the analysis of each survey question in isolation, for the purposes of understanding the results in general. Given the above general analysis, the statement made by Maya (2021) in the Study Context regarding customers' increased likelihood of brand advocacy due to positive brand perceptions may be reviewed. The initial findings of this study suggest that most Woolworths' customers are in fact unlikely to shop there more frequently in spite of their positive perceptions of Woolworths as a meaningful brand in the context of food waste management. Though this discovery not only challenges, but contradicts Maya's (2021) claim, important to note is the small sample size of the data collected, as mentioned in the Reliability and Validity section above. This will be discussed further in the Limitations section, after addressing the Feasibility and Ethical Considerations of the study.

The process of segmenting and cross-referencing questions will now be conducted, whereby the responses given to the perceptions and behaviour questions are compared to the frequency at which participants currently shop at Woolworths. This will help to identify trends, patterns and opportunities

for the brand to make further progress in raising awareness about their food waste management practices, or to implement adjustments where necessary. These insights will be elaborated on under Contributions. Regarding the perceptions portion of the survey questions, customers were asked how they perceive the brand considering Woolworths' food waste management practices. For all frequency groups of shoppers who bought food from Woolworths at least once a month or more often, over 70% of respondents perceived the brand more positively after reading the extract of the brand's Food Waste Positioning Statement (2021). This indicates that the perceptions of Woolworths' more regular shoppers were largely influenced in a positive manner.

Regarding shopping behaviours, 63% of respondents who currently shop at Woolworths a few times per month claimed that they would shop there more regularly due to Woolworths' food waste management policies. For the same question, 43% of the most frequent weekly shoppers indicated that they would shop at Woolworths more regularly. This lower figure might suggest that there is no need for these respondents to shop at the brand more regularly, as they already visit the store multiple times per week. Finally, as regards Woolworths' influence on customer domestic behaviours due to the brand's policies, the majority of respondents across all segments of shopping frequency displayed a similar sentiment, with Woolworths' policies not influencing them much. Respondents' reason for this - rather than apathy toward food waste management - is that they have been managing their food waste independent of Woolworths' influence on their domestic behaviours.

Reviewing the hypotheses outlined in the Central Tenets section above, null hypothesis A (H_{0A}) for the perceptions portion of the study represented a zero correlation (see Number of Null Hypotheses, 2017), and was written as:

“Woolworths' food waste management has no effect on customers' perceptions of the brand, according to survey findings”.

A positive correlation between Woolworths' food waste management and customer perceptions was shown by variable hypothesis one A (H_{1A}) (Bezuidenhout et al., 2014), and stated as:

“Woolworths' food waste management has a positive effect on customers' perceptions of the brand”,

while a negative correlation for consumer perceptions was represented by variable hypothesis two A (H_{2A}), and phrased as:

“Woolworths' food waste management has a negative effect on customers' perceptions of the brand.”

Null hypothesis B (H_{0B}) for customers' resulting shopping behaviours, also indicating a zero correlation, was defined as:

"Customers' knowledge of Woolworths' food waste management has no effect on their shopping behaviours".

A positive correlation between the brand's food waste management and customer shopping behaviours was portrayed by variable hypothesis one B (H_{1B}), and phrased as:

"Knowledge of Woolworths' food waste management has a positive effect on customers' shopping behaviours",

while a negative correlation for consumer shopping habits, titled hypothesis two B (H_{2B}), was written as:

"Woolworths' food waste management has a negative effect on customers' shopping behaviour."

Null hypothesis C (H_{0C}) for customers' resulting domestic behaviours, indicating a zero correlation between Woolworths' policies and customers' domestic habits, was written as:

"Customers' knowledge of Woolworths' food waste management has no effect on their domestic behaviours".

A positive correlation between the brand's food waste management and customer domestic behaviours, illustrating that Woolworths has influenced customers to adopt their own food waste policies at home, would be portrayed by variable hypothesis one C (H_{1C}), and shown as:

Knowledge of Woolworths' food waste management has a positive effect on customers' domestic behaviours.

Conversely, a negative correlation for consumer domestic behaviours, titled hypothesis two C (H_{2C}), would be written as:

Woolworths' food waste management has a negative effect on customers' domestic behaviours.

Regarding customer perceptions of Woolworths' policies, a positive correlation (H_{1A}) has been observed in the survey results, as a total of nearly 75% of respondents claimed that they perceive Woolworths more positively than before considering the brand's food waste management practices and Positioning Statement (2021). A minority of participants indicated a neutral perception of the brand, and none selected a neutral approach, thus rejecting H_{0A} and H_{2A} respectively. For customer shopping behaviours because of Woolworths' policies, statistics were almost tied between a

willingness to shop at the brand more regularly and a neutral stance, with 38.4% and 38.5% respectively. Majority thus supports a zero correlation (H_{0B}), with 23% indicating a negative correlation. Finally, regarding customer domestic behaviour, a total of 67.3% of respondents indicated no influence by Woolworths on their domestic food waste management behaviours, thus suggesting a zero correlation (H_{0C}). What these results mean for this study and the existing body of knowledge will be discussed later in Contributions.

FEASIBILITY

The various elements of a research study must be integrated in a realistic, feasible and attainable fashion to ensure the successful completion of the study (Bezuidenhout et al., 2014). A quantitative methodology helps to make this research study more feasible as the questions are closed-ended and do not require direct involvement by the researcher (Bezuidenhout et al., 2014; Bhandari, 2022; FormPlus, [n.d.]). Surveys can be distributed to the intended audience online at no cost, using various social media platforms such as Facebook, Instagram and WhatsApp. Additionally, technology offered by Google Forms will automate the reporting process, meaning that more focus can be placed on deriving insights and working towards identifying possible correlational relationships between Woolworths' food waste management, their customers' perceptions of the brand, and the resulting shopping and domestic behaviours of these consumers (Bezuidenhout et al., 2014).

Given the limited time window within which to conduct the research among participants, this study will aim to reach a sample size of up to 50 Millennials, with an intended response rate of 10 to 20 respondents, as mentioned above (Bezuidenhout et al., 2014). Despite Google Forms' automated reporting, the sample size remains capped at approximately 50 Millennials due to the limited size of survey respondents to which online access is available. A further consideration was made as to the lack of availability of the Millennials to complete the research survey within the allotted time, and the survey was thus designed to be as concise and easy to complete as possible. Finally, there are various question pairs within the survey that were interlinked and required additional analysis, thus consuming more time post-survey to compile, and necessitating that the sample size be manageable to account for this extra step in the analysis process (Bezuidenhout et al., 2014).

ETHICAL CONSIDERATIONS

It is necessary for a research study to ensure a sound ethical standpoint when committing to data collection, not only for the sake of the study's reliability and validity, but also for that of all stakeholders involved as well (Bezuidenhout et al., 2014). In the case of this study, the key stakeholders involved are survey participants, the broader public and research communities, IIE Vega, Millennial (and other) South Africans and the researcher. For the participants of the survey, their anonymity was assured by means of a message at the beginning and end of the survey, reassuring them of the anonymous nature of the questionnaire (Bezuidenhout et al., 2014). This was guaranteed by opting out of collecting email addresses of participants.

Consent was granted anonymously by respondents in the first question of the survey, thus ensuring confidentiality of respondent details (Bezuidenhout et al., 2014). The questionnaire was completed solely by participants who were aware of the ethical trustworthiness of the survey and study overall. The survey was delivered online and questions were quantitative, closed-ended, multiple choice questions that were answered in private and at the convenience of the respondent. The focus was on deriving facts rather than opinions, sparing participants from feeling as though they were being placed under a microscope, or being pressured into providing rushed answers to potentially embarrassing or personal questions. Furthermore, the voluntary nature of the study was communicated to participants, and no individual was forced to participate (Bezuidenhout et al., 2014).

Regarding the broader public, research communities, Vega and the researcher, this research report indicates the steps taken to ensure sound quality of work within this study (Bezuidenhout et al., 2014). Vega itself has signed off on the initial proposal prior to the study going live, which not only protected the institution's reputation but also guaranteed valid and reliable findings in which the broader public and research communities can place their trust (Bezuidenhout et al., 2014). Finally, Millennial (and other) South Africans stand to benefit greatly from this study, as hopefully it will encourage other retailers to adopt steps similar to that of Woolworths, given the discovery that the brand's food waste management has indeed positively influenced consumer perceptions and resulting shopping and domestic behaviours (Friske et al., 2022).

LIMITATIONS

When designing and conducting a research study, various limitations will present themselves, and this research study has experienced the same (Bezuidenhout et al., 2014). Effort has been taken to mitigate the shortcomings of this study, but there remain certain limitations that cannot be changed or controlled, but can be identified, for the benefit of future researchers. The first of this is the time allocated for collecting and analysing responses and uncovering insights. This has prevented the development and design of a research study that takes a more qualitative approach, as this would be too time-consuming. A quantitative approach has thus been elected instead, in the interest of maximising the limited time available, and effort has been made to ensure that the study maintains its reliability and validity and provides value to the existing body of knowledge (Bezuidenhout et al., 2014). The overall scope of this research study remains hindered, however, due to the quantitative nature of the survey. The closed-ended, multiple choice questions developed might not penetrate as deeply into customers' minds as possible qualitative counterparts and may thus prevent the study from reaching the same in-depth insights as might have been possible in an interview scenario (Bezuidenhout et al., 2014).

Another limitation of this study is the lack of direct access to the Millennial sample group in Cape Town, limiting the accessibility to respondents and potentially weakening the validity and reliability of this research study (Bezuidenhout et al., 2014). Access was limited to a small group of individuals, offering an even smaller Millennial population within it, and reliance was placed on the willingness of randomly selected individuals on various social media platforms to complete the Google Forms survey. The success of this study was thus dependent on the enthusiasm of participants to take part in the survey, and every attempt had to be made to make it easy to access and complete. This may have affected the results obtained from the survey, as a more detailed questionnaire may have produced more insightful feedback but may have been too tedious for respondents to complete in full.

The variables focused on in this study are customer perceptions and customers' resulting shopping and domestic behaviours considering Woolworths' food waste management practices. While data was successfully collected, and insights derived, the survey was kept short and concise to encourage completion by participants. Given this limitation, the perceptions of customers to Woolworths' food waste management were not studied deeply, and only high-level questions were asked. Similarly, their resulting shopping and domestic behaviours require closer study to highlight where opportunities lie for Woolworths to increase its revenue as well as its awareness raising and marketing messages. This will be elaborated on further in the final section. Due to the absence of Woolworths' conversion

targets for measuring the awareness raised with their marketing messages around the brand's food waste management practices, it is impossible to assess whether the statistics collected, and insights identified above indicate a successful awareness campaign. By obtaining access to these targets, they can be cross-referenced with the findings of this study to assess whether Woolworths has in fact achieved success in their raising of awareness regarding their food waste management practices.

Due to the design of the Positivist research paradigm, a further limitation of this study is that it is heavily rooted in the present and does not make future predictions or consider historical factors. This cross-sectional approach limits the application of results, and while the study still provides various contributions to the existing body of knowledge on customer perceptions of food waste management and their resulting behaviours, as will be explored in the next section, further contributions will be possible with further studies (Bezuidenhout et al., 2014; Bhandari, 2022; FormPlus, [n.d.]). These will be reviewed in the final section of this report. Despite these limitations, the insights and data derived from a present-focused research study may provide an important stepping-stone to understanding the current situation in South Africa, and can help to inform future studies, as will be considered next (Bhandari, 2022; FormPlus, [n.d.]).

CONTRIBUTIONS

The major contributions of this study to the extant body of knowledge on food waste and its management are the insights into customer perceptions and resulting behaviours due to the influence of a retailer's food waste management practices (Bezuidenhout et al., 2014). The hypotheses developed in the Central Tenets Guiding the Research were tested in the Findings and Interpretation of Data section, and the following was discovered. Woolworths was able to positively influence 75% of survey respondents with the food waste management practices they implemented throughout their supply chain. Despite this positive correlation, however, the brand failed to influence most respondents' shopping or domestic behaviours.

Based on responses regarding customer shopping behaviour, the results showed that 38.5% of respondents remained undecided about supporting the brand more regularly considering Woolworths' policies. The recommendation for Woolworths would be to develop a strategy for converting the undecided 38.5% to customers who would actively purchase from the brand more frequently due to their food waste management efforts. Regarding customer domestic behaviour, Woolworths currently fails to resonate with more than 11% of respondents in terms of the brand's influence on their domestic food waste management, and these results call into question the brand's meaningful status (Havas, 2021).

The responses provided by survey participants to the perceptions and behaviour questions were compared to the frequency at which respondents currently shop at Woolworths. It was found that 70% of frequent shoppers perceived the brand more positively after learning about Woolworths' food waste management policies and practices. 63% of surveyed customers who shop at the brand a few times per month claimed that they would shop at Woolworths more regularly due to their policies, highlighting an opportunity for the brand to convert these monthly shoppers into weekly shoppers thanks to their food waste management practices. Regarding customer domestic behaviour, a similar trend was observed in the general analysis and cross-referenced data, with most respondents indicating that they had not been influenced by the brand to adopt more or better food waste management strategies at home.

It can thus be concluded that although customers perceive Woolworths more positively considering their policies, and a certain segment of customers would be willing to support the brand more regularly as a result, most customers remain uninfluenced by the brand in a domestic behaviour capacity. By uncovering the reason for the lack of resonance among customers in relation to their

policies, Woolworths may be able to change the current trend and become a more meaningful brand by positively influencing customers to adopt more effective food waste management practices in their homes, thereby mitigating the problem of food waste in Cape Town and the broader South Africa, as well as the substantial food insecurity prevalent in the country (StatsSA, 2022).

RECOMMENDATIONS FOR FURTHER STUDIES

Due to the Limitations of this research study outlined above, various recommendations for further studies can be made. These will further add to the body of knowledge and may use this study as a starting point from which to further the research process. The insights derived from these further studies may provide researchers, as well as brands such as Woolworths, a better idea of the food waste and food waste management scenario in Cape Town, along with a more intimate understanding into the minds and behaviours of consumers. This in turn can lead to the creation of campaigns and other marketing strategies for raising awareness and support in the fight against food waste. Such a vision may be achieved, for example, by the development and design of a research study that takes a more qualitative approach. While this is largely time- and resource-dependent, the benefits of a qualitative survey cannot be ignored (Bezuidenhout et al., 2014).

The lack of direct access to the Millennial sample group in Cape Town has hindered the progress, reliability and validity of this study, despite the findings and insights herein. A larger sample size would have allowed the study design to take a more in-depth approach and uncover more meaningful insights, rather than focusing as much on the ease-of-completion and simplification of the survey to encourage the participation of available respondents, which has potentially hindered the results collected in the Google Forms survey. The recommendation then is to conduct a similar study with a larger sample size to generate more reliable and illuminating findings and insights that can be used and shared throughout the country at large, thus more effectively combating the generation of food waste, and moving toward better management thereof.

Studying customer perceptions more deeply would uncover which of Woolworths' food waste management practices resonate most with survey - or interview - respondents. This would grant Woolworths the opportunity to better understand the thought processes of their customers and evaluate which of their food waste management practices are most popular. A collaboration can then be made with organisations that deal with these specific practices to increase the meaningful brand status of both Woolworths and their collaborative partners (Havas, 2021). Customer shopping behaviours should also be studied more closely to identify which products these customers might buy more of, in support of Woolworths' food waste management efforts or to minimise the customers' own domestic food waste. This may also lead to in-store food waste management promotion opportunities of those products, with the possibility of converting customers into more regular shoppers at Woolworths.

Finally, researchers must study customers' domestic food waste behaviours and management because of Woolworths' practices over a longer period of time to assess the effect these have on food waste and its management in Cape Town. This would also create an opportunity to highlight trends and patterns for an awareness campaign or collaboration initiative wherein Woolworths and their customers support each other through in-store and domestic food waste management practices. This would further cement the collaborative relationship Woolworths proudly sites in their Values (2022), and that Morones et al. (2018), Aschemann-Witzel (2021), Jere et al. (2021) and Petljak (2021) discuss, as mentioned in Waste Along the Food Supply Chain section above. By improving on this study with the recommendations made in this section, more progress can be made, and positive changes seen in the field of food waste management throughout Cape Town and South Africa as a whole, and the food insecurity suffered by 40% of South Africans can be reduced, ensuring that all South African citizens are granted their Right to Food (Anon, 2014).

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ANNEXURE A - SURVEY QUESTIONS



Customer Analysis Survey of Woolworths' Food Waste Management

This survey aims to assess Millennial consumers' perceptions and subsequent behaviours as a result of Woolworths' Food Waste Management policies. This survey is completely anonymous and should be completed voluntarily.

  (not shared) [Switch accounts](#) 

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Customer Analysis Survey of Woolworths' Food Waste Management



[Redacted] (not shared) [Switch accounts](#)



*Required

Consent

Before continuing, kindly ensure that you have signed the consent form issued alongside this survey.

Prior to completing this survey, do you consent to having your responses recorded anonymously? *

☐ Yes

☐ No

[Back](#)

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[Clear form](#)

Background Information

For statistical purposes only.

What is your age range? *

Choose



[Back](#)

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Background Information

Choose

1922 – 1927

1928 – 1945

1946 – 1954

1955 – 1964

1965 – 1980

1981 – 1996

1997 – 2012

Clear form

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Your Woolworths Shopping Routine

For statistical purposes only.

How often do you buy any type of food at Woolworths? *

☐ Minimum once a week

☐ Minimum a few times a month

☐ Minimum once a month

☐ Minimum a few times a year

☐ Minimum once a year

☐ Never

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Food Waste Management

How important is food waste management and reduction to you? *

1 2 3 4 5

Very important ☐ ☐ ☐ ☐ ☐ Not important at all

Are you aware that Woolworths has Food Waste Management policies in place? *

☐ Yes

☐ No

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Woolworths' Food Waste Management

OUR COMMITMENT

As part of our Good Business Journey, we are committed to finding ways to reduce food waste and promote food security. This includes, but is not limited to, our surplus food programme in stores and across our supply chain – from our farms and factories – working in partnership with our suppliers.

We adopt the food waste utilisation hierarchy, which prioritises food utilisation and food waste avoidance or reduction in the first instance, and secondly the redistribution of surplus food for human consumption. Our goal is to ensure that no edible food should end up in a landfill.

- WOOLWORTHS (2021)

For more information, you can visit:

https://www.woolworths.co.za/images/elasticera/New_Site/Corporate/Woolworths_Food_Waste_Position_Statement.pdf

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Your Perceptions

Based on the previous statement.

How do you perceive the Woolworths brand, given the Commitment statement in the previous section? *

1 2 3 4 5

More positively than before ☐ ☐ ☐ ☐ ☐ More negatively than before

What are your thoughts on Woolworths having food waste management policies in place? *

1 2 3 4 5

These policies are necessary ☐ ☐ ☐ ☐ ☐ These policies are unnecessary

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The Woolworths Effect

Based on Woolworths' food waste management policies and efforts.

Will you shop at Woolworths more often, purely because of their food waste management policies? *

1 2 3 4 5

Definitely not! ☐ ☐ ☐ ☐ ☐ Definitely!

How have Woolworths' food waste management efforts influenced you to adopt more food waste management practices of your own at home? *

- ☐ Woolworths influenced me a lot!
- ☐ Kind of
- ☐ Neutral
- ☐ Not much
- ☐ Woolworths didn't influence me at all - food waste management is not a priority
- ☐ I've been managing my domestic food waste perfectly without Woolworths' influence

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Thank You!

Your answers have been recorded anonymously. Your participation is highly appreciated!

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Submit

Clear form

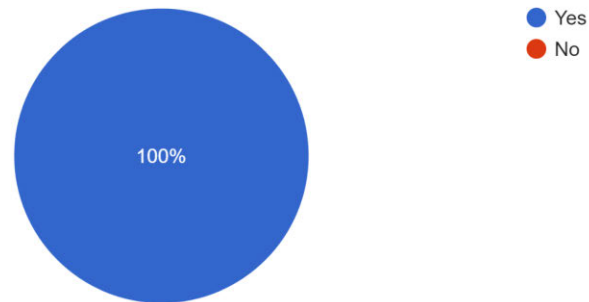
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ANNEXURE B - SURVEY RESPONSES

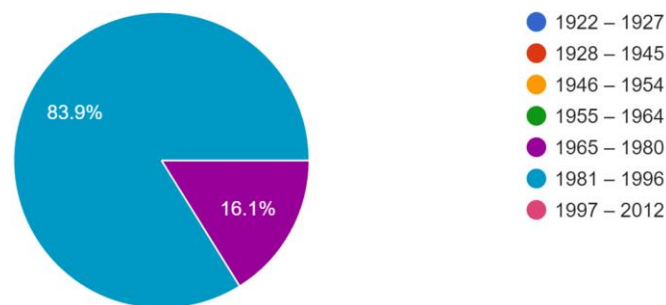
Prior to completing this survey, do you consent to having your responses recorded anonymously?

31 responses



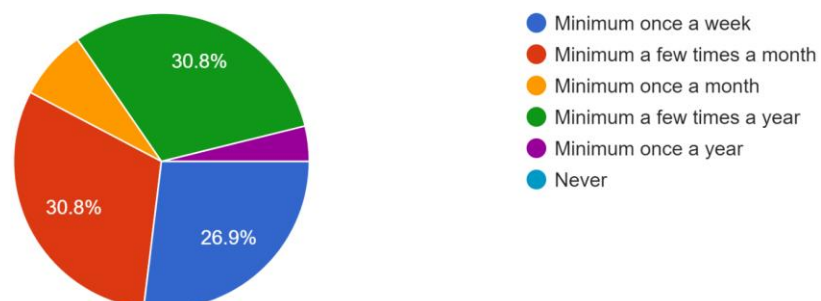
What is your age range?

31 responses



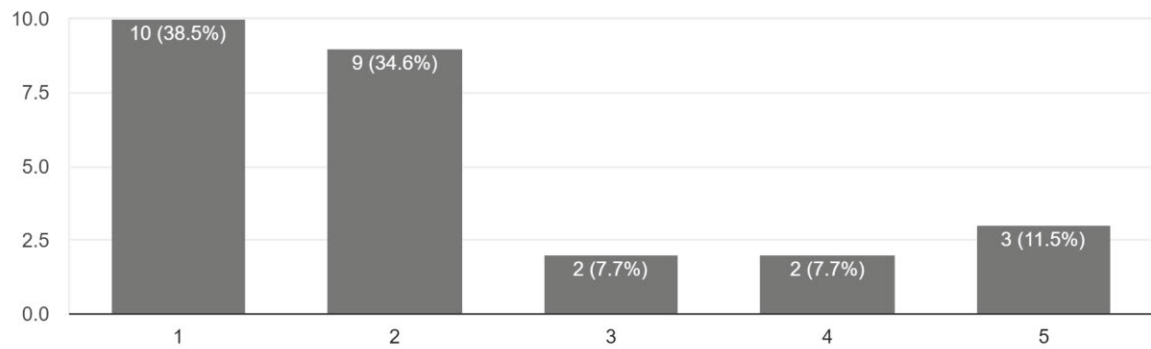
How often do you buy any type of food at Woolworths?

26 responses



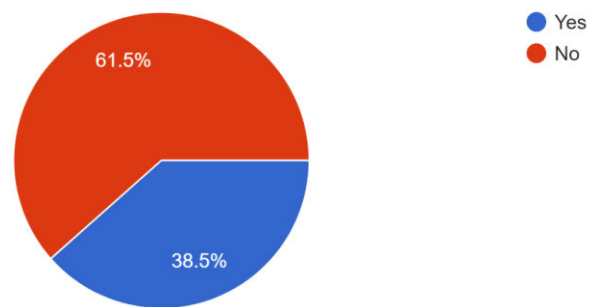
How important is food waste management and reduction to you?

26 responses



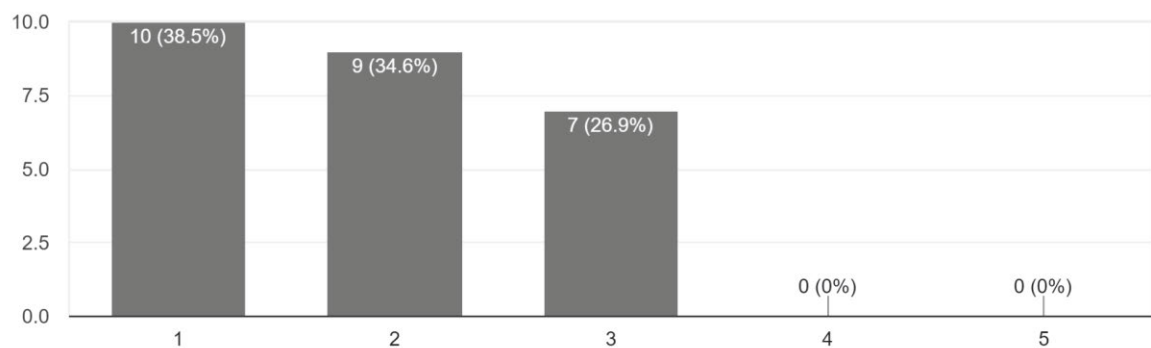
Are you aware that Woolworths has Food Waste Management policies in place?

26 responses



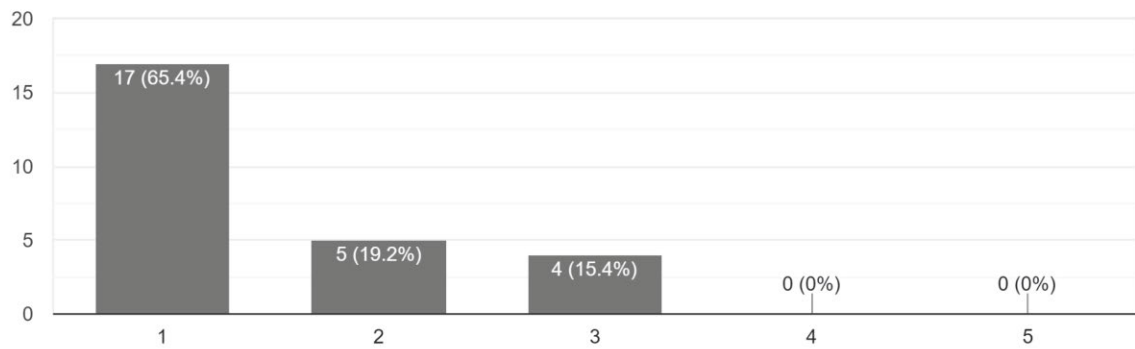
How do you perceive the Woolworths brand, given the Commitment statement in the previous section?

26 responses



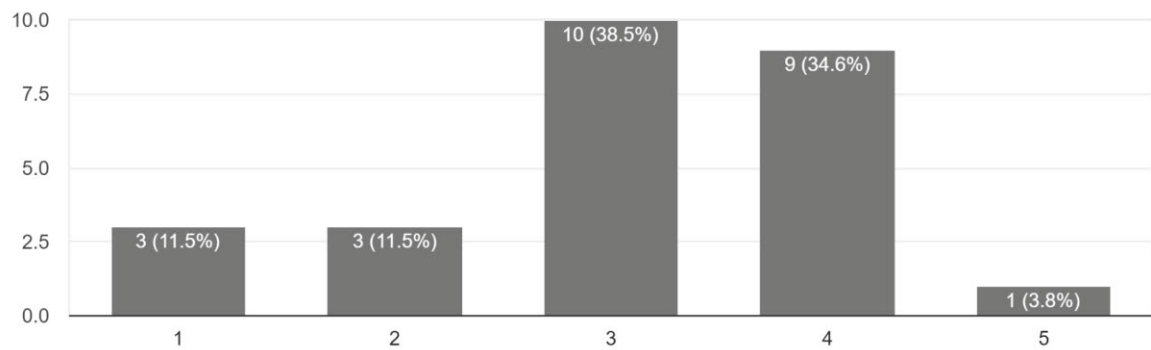
What are your thoughts on Woolworths having food waste management policies in place?

26 responses



Will you shop at Woolworths more often, purely because of their food waste management policies?

26 responses



How have Woolworths' food waste management efforts influenced you to adopt more food waste management practices of your own at home?

26 responses

