



RESEARCH TITLE: An analysis and evaluation of food waste management processes and the role on food waste at consumer level within a quick service restaurant in Parkhurst, Johannesburg.

Name: Mpho Cindy Singo
[REDACTED]

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Lecturer: Mbali Rametse

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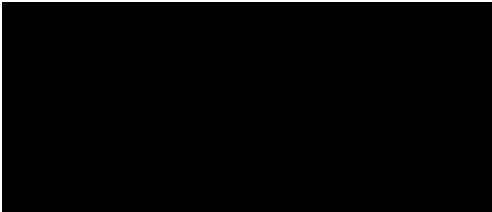


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ABSTRACT

The research analysed and evaluated the role food waste management processes have on food waste at consumer level, within the context of a quick service restaurant (QSR), in Parkhurst, Johannesburg. The study reviewed literature on food waste management within a QSR supply chain and food packaging and waste within the entire supply chain process. The main intention of the study was to analyse and evaluate food waste management processes and the role it has on consumer food waste. Further to this, the study identified possible strategies to minimise food waste at both QSR and consumer level, to achieve the meaningful brand status. A qualitative case study approach was deployed to collect data. This was conducted through in-depth interviews with staff members and consumers of Rockets Parkhurst. The conceptual development of the study lied on the hermeneutics and phenomenology theories within the inductive interpretivist paradigm. These theories “attempt to understand and describe meaningful social actions, experiences, and human nature. The selected research methodology and paradigm was applicable because the study aimed to analyse and evaluate food waste management processes and the role it has on food waste at consumer level. Therefore, the study required a more inductive, interpretive approach to allow the researcher to obtain a contextual representation of how the brand and its consumers experience the research problem.

Key words: Quick Service Restaurant (QSR), food waste, food packaging and meaningful brands.

1. INTRODUCTION

1.1 Rationale

The main purpose of the research report was to analyse and evaluate the role food waste management processes have on food waste at consumer level within Rockets Parkhurst in Johannesburg. Further to this, the study identified possible strategies to minimise food waste at both QSR and consumer level of to achieve the meaningful brand status. The research report is relevant to the targeted brand and its consumers because it can assist the brand to develop new plans of action, policies, and awareness campaigns to reduce knowledge deficiencies around food waste. Thereby, impacting on the collective and functional benefits of consumers. Consumers are attracted to brands that care about the health of the economy, the environment, the communities and who keep their promises (Havas Media Group.,2019). Furthermore, consumers may launch the brand's values and messaging, thus increase brand loyalty, and improve sales and recommendations to friends and family. The research report was divided into two phases: Phase one, involved the collection of data through in-depth interviews with the manager, head chef and the staff of Rockets Parkhurst, to gather insights and perspectives into how they manage food waste and to identify possible measures to reduce such waste. And in the second and last phase of the research report, followed the same route of data collection with ten consumers of Rockets Parkhurst.

Moreover, the brand may take pride in creating a sustainable food future and owning the global Sustainable Development Goals 12.3. The management of Rockets Parkhurst may use the findings of the research to encourage strategic conversations and develop pristine initiatives and policies around food waste management. And as a result, elevating its brand to one with meaning, impact, and purpose. It is essentially critical for the brand to continue delivering excellent customer service offerings and quality food products to its consumers, to continue to be an efficient and professional brand that has cultivated its business model into an incredibly efficient quick service restaurant. Lastly, the research findings may contribute to minimising costs incurred by the brand due to food wastage and influence the adoption of new technology in food waste management to save resources such as water and energy.

1.2 The problem statement

This research report employed a case study approach to understand a phenomenon. Looking at the quick service restaurant sector, this study may be useful to other QSRs within the precinct of Parkhurst in adopting new strategies to minimise food waste, strategies to create impactful and meaningful campaigns around food waste management. The main purpose of the research was to analyse and evaluate the role food waste management processes have on consumer food waste within Rockets Parkhurst in Johannesburg. Further to this, the research identified possible strategies to minimise food waste at both Rockets and consumer level, to achieve the meaningful brand status.

1.3 The research goal

The research goal of this report was to determine the causal relationship between food waste management processes and food waste at consumer level, with the aim to identify possible strategies to reduce food waste at both QSR and consumer level, to achieve the meaningful brand status.

1.4 The research question

What is the causal relationship between food waste management processes at Rockets Parkhurst and food waste at consumer level?

2. THE LITERATURE REVIEW

2.1 Introduction

According to FAO (2019:5) "The food supply chain consists of the following segments: agricultural production and harvest, slaughter, catch, post-harvest, slaughter, catch operations, storage, transportation, processing, wholesale and retail, and consumption by households and food services. Agricultural production, harvest and post-harvest, slaughter, catch operations refer to activities where produce is still on the farm or the producer's premises. Post-harvest, slaughter, catch operations include cleaning, grading, sorting, and treatments. Processing includes primary processing operations, which often take place on the farm and secondary processing. The moment food is consumed or removed from the food supply chain defines the end point of that chain".

Food waste management within a QSR supply chain

According to Dzumbunu (2017:66) "factors contributing to food waste in a quick service restaurant supply chain are: **product, process, machinery and people**". The next section will discuss in detail the identified factors contributing to food waste at each stage of the supply chain.

Product

Product affects food waste at all stages of the supply chain process. At supplier stage, raw materials that do not meet company specifications, creates food waste. At distribution centres, food waste is immanent in product control and handling. The unwillingness of staff to prepare food correctly, results in food losses (Dzumbunu, 2017).

Process

Firstly, processes in supply chain affects food waste due to the disintegration of cold chains caused by inconsistencies in offloading procedures at supplier stage. Secondly, the procedure of mincing and patty generation, results in food waste at the manufacturing stage of the supply chain. And lastly, food waste at the retail stage of the supply chain is caused by poor stock management processes and over-stocking on food supplies due to poor planning (Dzumbunu, 2017). The research concurs with the findings of the FAO (2019) which believes that the causes of food waste at the retail level are associated with a limited shelf life and inadequate storage conditions and at consumer level, it is associated with poor

meal planning, purchasing in excess, poor storage facilities and confusion with expiry dates. Lastly, sufficient cold storage is pivotal in preventing quantitative and qualitative food losses.

The impact of machinery

The significant effect of machinery at the supply chain level, is considerable at manufacturing stage. The breaking down and lack of maintenance of machines have been found to contribute to food waste. However, at retail stage, the findings did not show that food waste was because of machinery, although faulty freezers resulted in food waste (Dzumbunu, 2017).

People

Dzumbunu (2017) asserts that at retail stage of the supply chain, human beings have a significant influence on food waste. For example, a driver transporting food supplies, may stop on the side of the road to take break due to fatigue and decide to switch off the engine of the truck, causing a break in the cold chain. And at manufacturing stage, monkey tricks and delinquency influence food waste. Furthermore, the researcher asserts that as a human error, forklift operators may damage goods at distribution stages. And lastly, at retail level, staff training, following proper procedures and the attitude of staff have an influence food waste. The research findings coincide with those found by the FAO (2019) in that food loss and waste is the decrease in quantity or quality of food along the food supply chain. The causes of food waste at retail level are connected to the limited shelf life of perishable food products, to high quality standards of buyers and differences in demand, specifically of fresh produce. Storage conditions, quality packaging and handling procedures have a significant impact on the quality, shelf life and acceptable standards of food products (FOA, 2019). The table below illustrates the factors discussed above in more detail using the tree format.

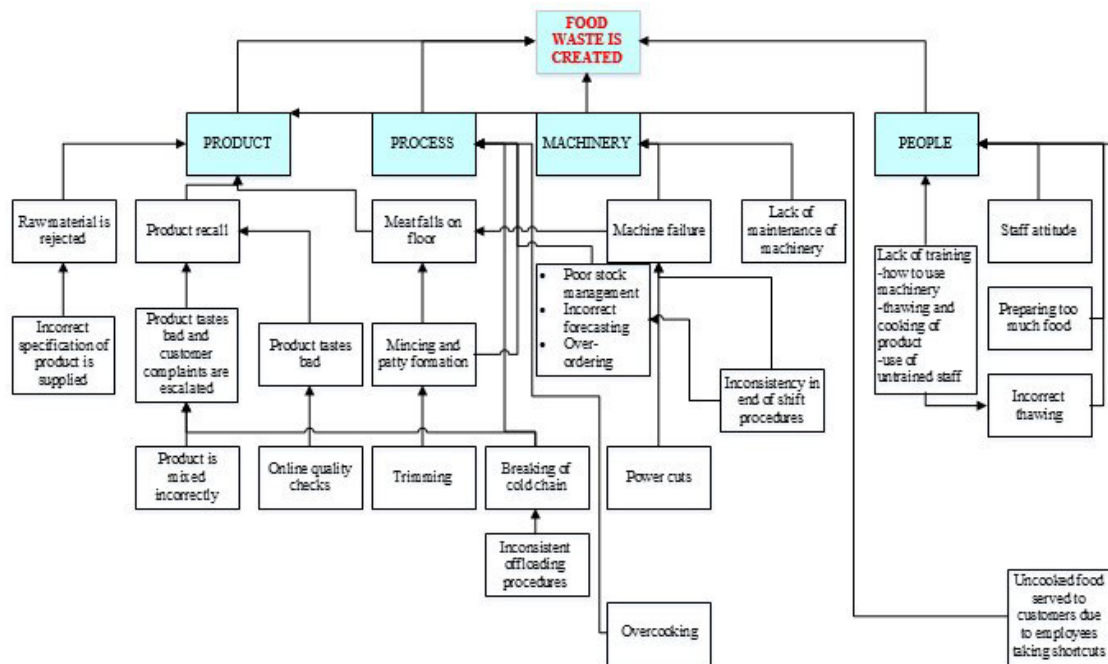


Figure 1. Current Reality Tree for the South African quick service restaurant supply chain

Source: (Dzumbunu, 2017: 66)

Dzumbunu (2017:66) surmises that “raw materials contribute to food waste if the incorrect product specification is supplied. And that at store level prawns (considered to be a raw material) are not cooked in full as the heads are cut off and thrown away resulting in food waste whereas they could be reworked into another product like fish pops. The findings of the research allude to the literature sources on food waste within the quick service restaurant supply chain. In the current research, manufacturing processes and finished products as factors contributing to food waste detail the impact of production, cutting, mincing, patty formation, and online quality checks on food waste”. However, Flanagan, Robert and Hansen (2020) argue that food losses and waste occur due to multiple factors but are mostly driven by poor infrastructure and packaging, inadequate equipment, behavioural drivers, lack of awareness, knowledge, poor planning on supply and demand marketing strategies. FAO (2019) states that processing and packaging contributes towards the preservation of foods and that food losses may be due to technical malfunction or human error when handling storage facilities. The literature prompts an investigation into food waste management processes within QSR and how it contributes to food waste at consumer level.

Rockets, Parkhurst might have to relook their food storage conditions and technology, to minimise food waste and save the environment. Globally, food waste and loss, and the associated environmental, social, and economic implications, have become a topic of increasing global concern. With every morsel of food that is produced and wasted, the embedded nutrition, energy, water, capital, and other resources are also wasted (World Wide Fund, 2017).

Food loss and waste

According to the WWF (2017), “In south Africa, tonnes of millions of food go to waste annually and 70% of the wastage and loss, includes fruits, vegetables and cereals and this wastage and loss primarily occur early in the food supply chain”. In addition to diet-related health problems, such as obesity and non-communicable diseases (NCDs), the persistence of hunger and nutrient deficiencies” (WWF, 2019). The WWF (2017) examined the consequential economic and environmental losses that occur from wasted food while millions of South Africans suffer from hunger and malnutrition. In addition, it estimates that more than 40% of children in South Africa lack Vitamin A, leading to enfeebled immune systems and that 10% of those children lack iron, leading to weakness and fatigue. The identified brand could pursue food donation programmes to those in need or identify non-profit organisations to work with in eliminating hunger amongst those in need.

Flanagan et al. (2020) encourage countries and companies to own the global Sustainable Development Goals (SDGs) 12.3 target, to measure their food loss and play a role in assisting to create a sustainable food future. Furthermore, WWF (2019:21) suggests that “greenhouse gas emissions from the full agri-food ‘value chain’, which includes agriculture-related deforestation, farming, processing, packaging, transportation and waste, are estimated to account for 43–57% of all human greenhouse gases (GHG emissions) and the financial burden of food loss and waste in South Africa has been quantified at R61,5 billion or 2,1% of the national GDP”. “During 2010–2016, global food loss and waste equalled 8–10% of total anthropogenic GHG emissions” (Intergovernmental Panel on Climate Change, 2020). The identified brand, in its quest to add value and create meaningful impact, could bring awareness to its consumers on topics such as the above to give a global perspective of the effects and consequences of food waste. The 2050 Scenario suggests that there will be an increase in production, estimated at 50%

to feed almost 10 billion people by 2050 and the South African population will be in demand for most commodities. Therefore, an immediate shift in mind-sets and approaches to food waste is essential to eliminate hunger, ecological consequences, and climate change (WWF, 2019).

Food packaging

Guillard, Gaucel, Fornaciari, Angellier-Coussy, Buche, and Gontard (2018) assert that packaging is an important element in responding to key challenges of sustainable food consumption and lessening the environmental footprint of packaged food. The researchers further argue that when food is discarded, the packaging is also discarded and that this amounts to the burdening of the environment and that these processes play an important role in conserving food items. However, the WWF (2019), argues that food packaging can be harmful to the environment through the creation of more plastic waste, therefore, specifically, plastic packaging is the main driver of plastic waste. Fortunati, Mazzaglia, and Balestra (2018) argue that new sustainable, antimicrobial and antioxidant systems have been expeditiously endorsed and scrutinised in the food packaging sector as a justifiable eco-friendly possibility for enhancing the safety and quality of food products and lessening and/or curbing the environmental footprint with respect to traditional materials. The identified brand may have to adopt such systems to promote food safety and limit the effects on the environment, caused by plastic waste. However, the Intergovernmental Panel on Climate Change (2020) argue that minimising food loss and waste in relation to technology, include refining means of harvesting, on-farm storage, infrastructure, and packaging. Packaging is essential to food quality conservation through the management of gas and vapor exchanges with the external conditions, advancing food quality during storage, thereby, averting food safety issues (Guillard et al., 2018). New and improved technologies, across the board, for packaging food are essential to saving the environment and protecting food from being wasted. The evidence based on the literature review, constitutes more research on food waste management processes with QSR with the aim to minimise food waste across the board.

3. CONCEPTUALISATION

Conceptualisation is defined as “the refinement and specification of abstract concepts to create specific meaning for the purpose of a specific research project” (Du Plooy-Cilliers et al., 2014: 107). Food waste at consumer level may be due to a lack of awareness and retailers selling poor quality food products to consumers. Therefore, the fundamental basis would be to create awareness around food waste, both at consumer and retail level. In addition, consumer purchase and eating behaviour may lead to food waste, caused by the over purchasing of food and unplanned meal preparations. At retail level, food waste may be caused by the incorrect preparation of food, poor storage facilities, excess stock, or packaging. Some food packages may be difficult to open, leading to food waste. A QSR is referred to as a quick service restaurant. The conceptual development of the study has its foundation on the hermeneutics and phenomenology theories within the inductive interpretivist paradigm. These theories “attempt to understand and describe meaningful social action, experiences, and human nature. The researcher reviewed literature on food waste within a QSR supply chain, conducted through a qualitative exploratory case study.

4. THE RESEARCH PARADIGM

Du Plooy et al. (2014:23) summarises that “the epistemology position is the study of knowledge, that is, it deals with the nature of knowledge and the different ways of knowing”. In addition, describes the ontological position as the “study of being, existence or reality and includes the assumptions made about certain phenomena”. The main questions in relation to ontology are what reality and truth are and whether such reality and truth exist (Du Plooy et al., 2014). And according to Wagner et al. (2012:51) “a paradigm is informed by philosophical assumptions about three things: the nature of reality, ways of knowing and ethics and value systems. These are respectively referred to as, **ontology** (what do we believe about the nature of reality?), **epistemology** (how do we know what we know?) and **axiology** (what do we believe is true?). therefore, a paradigm leads to certain questions and appropriate approaches to systematic inquiry. Ontology relates to whether we believe there is one verifiable reality or multiple, socially constructed realities. Epistemology inquiries into the nature of knowledge and truth, asking questions such as what can one know? what are the sources of knowledge? Is a

belief true knowledge? How reliable are these sources?”. There are three dominant research traditions and the discussion on these will be discussed in the next section.

4.1 THE THREE DOMINANT RESEARCH TRADITIONS

4.1.1 Positivism

Du Plooy-Cilliers et al. (2014:24) asserts that “positivism can be defined broadly as the approach of the natural sciences”. Therefore, positivists endorse the utilisation of natural sciences methods to study phenomena, including social phenomena. Furthermore, positivism asserts that only unbiased, detectable and demonstratable facts should be evaluated when striving to understand and describe natural and social phenomena. That is, it is based upon the view that science is the only foundation for true knowledge (Wagner et al., 2012).

4.1.2 Interpretivism

Interpretivism rests on the idea that people are intrinsically different from objects. Therefore, because human beings are constantly moving and influenced by the environment, they find themselves in, they cannot be studied in the same way as objects would be studied in the natural sciences. Interpretivists are concerned with acquiring an empathetic, thorough understanding of human behaviour, therefore, investigating and reporting meaningful social actions. This tradition has been guided by hermeneutics, phenomenology, and symbolic interactionism.

Firstly, **Hermeneutics** is engrossed in the postulation and planning approaches of the study of human action (Du Plooy-Cilliers et al., 2014). And, **Phenomenologists** assert that “human action is meaningful, and that people ascribe meaning both to their own and other people’s actions. And that the task of the researcher is to interpret and gain an understanding of human actions and then to describe them from the point of view of the person or group being studied” (Du Plooy-Cilliers et al., 2014:28). Lastly, **Symbolic interactionists** asserts that “people’s experiences and interactions with others, form social constructs that shape their perceptions and meaning systems. And that as people’s perceptions of reality and meaning change, so do their views on life” (Du Plooy-Cilliers et al., 2014:28).

4.1.3 Critical

Critical realism maintains that “knowledge is a social construct and authentic structures exist independent of human consciousness” (Du Plooy-Cilliers et al., 2014:31).

The main intention of the study will be to analyse and evaluate the role food waste management processes have on food waste at consumer level within Rockets Parkhurst in Johannesburg. Further to this, the study will attempt to identify the strategies to minimise food waste at both QSR and consumer level, to achieve the meaningful brand status. This study will employ a qualitative research methodology, using in-depth interviews in the first phase of the research and participant observation in the last phase of the research. The in-depth interviews will consist of open-ended, descriptive, and non-directional questions. The conceptual development of the study its foundation on the hermeneutics and phenomenology theories within the inductive interpretivist paradigm. These theories “attempt to understand and describe meaningful social action, experiences, and human nature. The researcher will aim to interpret and understand human actions of participants and describe the actions from the participant’s point of view” (Du Plooy-Cilliers et al., 2014:28). This paradigm allows the researcher to “gain an empathetic, in-depth understanding of human behaviour” (Du Plooy-Cilliers et al., 2014). The selected research methodology and paradigm will be applicable because the study will analyse and evaluate food waste management processes relative to food waste at consumer level. This therefore requires a more inductive, interpretive research to allow the researcher to obtain a contextual representation of how the brand and its consumers experience the research problem.

5. THE RESEARCH METHODOLOGY

This chapter of the research report details the methodology employed for the current research study. It will discuss the research strategy, the research design and sampling plan in detail below.

5.1. Research strategy

A case study qualitative research approach was administered to evaluate the research question, as the question aimed to analyse and evaluate the role food waste management processes have on food waste at consumer level within a quick service restaurant.

5.2 Research design

The study employed a case study approach to employ the collection of data through in-depth interviews of the manager, the head chef, one waitress, three waiters and one cleaner, in phase one of data collection. In phase two, the researcher followed the same process by interviewing ten consumers of Rockets Parkhurst. The study site was Rockets Parkhurst, which is located at 24,4th Avenue and 10th Street. The research took approximately 30 minutes with each participant. Lastly, the research questions were divided into three, the manager and head chef had the same set questions posed by the researcher, the waiters, waitress and cleaner had their own set of questions while consumers had a different set of questions (please see appendix A). This was because the researcher's aim was to gain in-depth insights into food waste management processes with Rockets Parkhurst, without missing possible valuable details.

5.3 SAMPLING PLAN

5.3.1 Unit of analysis

Thematic analysis is described generally as an approach to analyse qualitative data which involves the identification of themes or patterns in the data collected (Wagner et al., 2012). After the collection of data, the researcher transcribed the interviews and identified units of analysis through words and phrases used by participants. This enabled the researcher to code the units of analysis into groups to understand how participants construct meaning. Moreover, the researcher was

able to organise the data into categories and identify the recurring words and phrases discussed during the interview, to tell a story.

5.3.2 Population

A population is defined by Wiid and Diggines (2013:186) as “the total group of people or entities [social artefacts] from whom information is required” (Du Plooy-Cilliers et al., 2014: 132). The population sample will consist of the following individuals:

- The manager
- The Head Chef
- Three waiters
- One waitress
- One cleaner
- Ten consumers, consisting of adult males and females

5.3.3 Criteria

The research study employed non-probability sampling in the form of convenience sampling because it is a cost effective and convenient method of sampling. The sampling method, according to the views of Du Plooy-Cilliers et al. (2014) and Wagner et al. (2012), is often accused of bias and the results are considered unreliable because they do not represent the wider population. “Convenience sampling is sometimes referred to as accidental or haphazard sampling” (Wagner et al., 2012:92). The sampling method comprises elements known by the researcher or that the researcher has quick and easy access to. However, in the case of qualitative research, the representativeness of the sample is not necessarily important in comparison to probability sampling (Du Plooy-Cilliers et al., 2014). The researcher had no access to the entire population and used their own judgement to randomly select participants who were easily accessible (Du Plooy-Cillier et al. 2014).

5.4 THE DATA COLLECTION INSTRUMENT

The research employed a case study approach and the collection of data through in-depth interviews, focusing on standardised and open-ended questions. However, the researcher allowed the interview to flow in a natural and conversational manner (Du Plooy-Cilliers et al., 2014). The interviews consisted of open-ended, descriptive, and non-directional questions posed to the manager, head Chef and staff members, with the aim to gather insights into how they manage food waste and to further identify possible strategies to reduce such waste both at retail and consumer levels. And the same process was followed in phase two of data collection. The researcher probed for responses whenever necessary to get more details and clarity on the questions. The researcher wrote field notes and utilised a cellphone to record data in both phases of the research, with the permission of participants. A case study is a thorough illustration of a social phenomenon within the context of a real world (Du Plooy-Cilliers et al., 2014).

5.5 Research questions for interviews

The interviews were guided by an introduction which included consent and permission to record the interview, ethical issues, followed by the research questions outlined below and ended with concluding remarks (**please see Appendix A**).

5.5.1 Research questions for the manger and head chef:

RQ.1: Please define what you consider to be food waste?

RQ.2: What is your response to food waste?

RQ.3: What food safety protocols do you adhere to?

RQ.4: What types of storage facilities do you use to store food?

RQ.5: what is the condition of the storage facilities?

RQ.6: What types of secondary packaging do you use to store food?

RQ.7: How do you decide when to order new stock?

RQ.8: When you receive stock, how do you make certain that the stock is in good condition?

RQ.9: Is management involved in the production of meals?

RQ.10: What are your suggestions to minimise food waste?

5.5.2 Research questions for the waiters, waitress and a cleaner:

RQ.1: What do you understand to be food waste?

RQ.2: How do you respond to food wasted by consumers?

RQ.3: What types of secondary packages are used for takeaways?

RQ.4: What happens to the food wasted by consumers?

RQ.5: What are your possible suggestions to minimise food waste?

5.5.3 The research interview guide: Consumers:

RQ.1. What do you understand to be food waste?

RQ.2. What is your personal response to food waste?

RQ.3. How would you rate the quality of food at Rockets Parkhurst?

RQ.4. How often do you frequent Rockets Parkhurst?

RQ.5. What are your possible suggestions to minimise food waste at restaurants?

RQ.6. Would you care if Rockets Parkhurst disappeared or ceased to exist, and why do you say that?

RQ.7. What value does Rockets Parkhurst add to your life?

RQ.8. Would you recommend Rockets Parkhurst to family and friends, and why?

5.6 THE DATA PROCESSING AND ANALYSIS

5.6.1 Data processing

The researcher identified patterns in the data collected and used themes to arrange the data. This was followed by arranging the themes into clusters to come up with the main theme and sub-themes and the use of quotes to elucidate those themes. The researcher aimed to gather authentic and unbiased responses from participants and their honest views on food waste and possible strategies to management it. Furthermore, the researcher only captured relevant information from participants that enabled the categorisation of the data in a thematic manner to pick up similarities. The process permitted for possible parities or disparities between the current food waste management processes at QSR and the findings of this research. In the case of disparities, the researcher spotlighted new findings and possible recommendations for future research. The process of analysing data encompasses varied ways of making sense of the data collected. It is described as a process of simplifying or organising data into summary statements, sheets,

or tables. To analyse data, the researcher may take either the deductive or inductive approach. In deductive approach, the researcher aims to confirm or explain phenomena, and in inductive approach, the researcher aims to explore or describe some phenomenon (Wagner et al., 2012).

5.6.2 Data analysis (Thematic analysis)

The researcher followed the guidelines for thematic analysis of data processing as proposed by Wagner et al. (2012: 231-232) as summarised below:

1. **Data familiarisation** - the researcher reads through the interviews various times to familiarise herself with the data.
2. **Coding** - the identification of units of analysis. Units may be words, phrases and / or sentences labelled with codes to come up with a meaning.
3. **Searching for themes** - This allowed the creation of a coded themes to identify patterns in the data collected. The process is described as the constant comparative method as it assists the researcher to compare new pieces of data with previous ones to organise the data into categories.
4. **Reviewing themes** - the process to identify recurring phrases and words to comprehend and construct meaning associated with the emotions and feelings of participants.
5. **Defining the themes** - a list of all codes kept and given definitions, to display appropriate and non-appropriate entries for each code.
6. **The write up** – the researcher grouped the codes into themes of meaning to respond to the research question.

5.7 THE RESEARCH RELIABILITY AND VALIDITY

According to Du Plooy-Cilliers et al. (2014:252-253) “the concepts ‘reliability’ and ‘validity’ are most commonly used in quantitative research, because they relate to the measurability of results”. Therefore, in qualitative research, the concepts are referred to as ‘trustworthiness’ and include credibility, transferability, dependability and confirmability.

Credibility signifies the accuracy of data interpretation by the researcher (Du Plooy-Cilliers et al., 2014)

Transferability is concerned with the findings being applied to similar situations and returning corresponding results (Du Plooy-Cilliers et al., 2014)

Dependability alludes to the quality of processes around data collection methods, analysis, and theory (Du Plooy-Cilliers et al., 2014)

Confirmability is concerned with the support of the findings and interpretation of the data collected by the researcher and the wellness of the flow from the data (Du Plooy-Cilliers et al., 2014).

The researcher collected the data in an unobtrusive manner and observed targeted participants closely before approaching them to ask for permission to conduct the interviews. Basically, the researcher's aim was to observe and collect data from participants without interfering with the setting or influencing them to act differently.

6. THE DATA ANALYSIS AND PRESENTATION OF RESULTS

6.1 Introduction

The main purpose of the research study was to analyse and evaluate the role food waste management processes have on food waste at consumer level within Rockets Parkhurst in Johannesburg. This chapter describes the data analysis of the research, the demographics of all participants and presents the findings from the data collected.

6.2 The data analysis

Thematic analysis "is a general approach to analysing qualitative data that involves identifying themes or patterns in the data" (Wagner et al., 2012:231). Therefore, the researcher analysed the results of the study through the thematic content analysis approach. The approach enabled the researcher to "break down the text into codes and concepts and rearrange such into meaningful categories" (Du Plooy-Cilliers et al., 2014:234). The researcher identified patterns in the data collected and used themes to arrange such data. This was followed by arranging the themes into clusters to come up with a main theme and sub-themes and the use of quotes to elucidate the themes.

The researcher undertook the interview process with all participants over a two-day period and the interviews lasted for approximately 30 minutes each. All participants were briefed about the nature of the research and handed the consent form template to read and understand. Thereafter, the researcher asked if they understood, needed clarity or whether they were comfortable with what they have read. Once clarity was given, participants were asked to sign the consent form for participants and consent form for audio or video recording. The researcher explained reasons behind the audio or video recording consent forms to all participants, before being granted the permission to go ahead with data collection process (refer to appendix E). In the cases of permission not granted for audio or video recording, the researcher only scribed the responses. The results were analysed using the thematic analysis method.

6.3. The presentation of results (Participant demographics)

The participants included adult males and females who gave consent to be interviewed by the researcher. All participants were comfortable with expressing themselves in English and understood clearly all questions posed by the researcher. Below is the demographics of all participants interviewed for purposes of the research project.

Participants	Gender	Racial identification	Home language
Participant 1	Male	Black African	Shona
Participant 2	Male	Black African	IsiZulu
Participant 3	Male	Black African	IsiZulu
Participant 4	Male	Black African	Shona
Participant 5	Male	Black African	English
Participant 6	Female	Black African	IsiZulu
Participant 7	Female	Black African	Setswana
Participant 8	Female	Black African	Northern Sotho
Participant 9	Male	Black African	IsiZulu
Participant 10	Female	Coloured	Afrikaans
Participant 11	Female	White	Afrikaans
Participant 12	Female	White	Afrikaans
Participant 13	Female	Black African	Sesotho
Participant 14	Female	Black African	Setswana
Participant 15	Male	Black African	Xitsonga
Participant 16	Female	Black African	IsiXhosa
Participant 17	Male	Coloured	Afrikaans

Table 1. Participant demographics

Source: compiled by the researcher

6.4 The identified themes and sub-themes

This section will present the themes and sub-themes from the data collection process on food waste management processes at Rockets Parkhurst. Followed by a discussion with the manager and head chef. It will end with a summary of the main findings, suggestions, and conclusion.

Table 2. Themes and sub-themes

Theme	Sub-theme 1	Sub-theme 2	Sub-theme 3
People	Mismanagement of food	Incorrect placement of orders	Lack of knowledge of the implications of food waste
Machinery	Old storage facilities	Maintenance	
Process	Over production of food	Stock management	Mishandling of stock
Lack of product knowledge	Portion sizes	Product packaging for take-aways	Reusage of off-cuts
The donation of food	Feed the communities in need	Repurpose waste for compost	Offer to staff
Meaningful brands	Personal benefits	Collective benefits	Functional benefits

6.5 The interview with the manager and head chef.

The next section discusses the key themes and insights of the food waste management processes at Rockets Parkhurst, discovered through the interview with the manager and head Chef. Through the discussions, the leading themes were **people, machinery, process**. The sub-themes for people were the mismanagement of food in the kitchen, not following proper procedures when handling or preparing food, the over or under cooking of food. In response to the question regarding the condition of the storage facilities, the response was “the storage facilities are more than 5 years old but are serviced every month and serve their purpose”. However, there was no mention of the use of thermometers to alert the kitchen staff of critical temperature changes that could potentially affect the safety and quality of food stored. And the researcher did not get an opportunity to view the facilities. Although the manager mentioned that the brand has ‘parameters’ in place on ways to handle food, waste does occur due to a lack of following proper procedures. Taking out stock from the refrigerator and not putting it back into the fridge has been identified as a contributing factor to food

waste. In response to the question on food safety protocols adhered to, the response was “the usage of colour coded cutting boards, sectioned kitchens in terms of hot or cold food preparations and proper and suitable attire for all staff”. This suggest that the brand follows protocols based on the identified themes above and not necessary the constant sanitizing of hands, surfaces, and appliances, especially, since we are currently facing the Covid-19 pandemic.

What food safety protocols do you adhere to?

The manager and head Chef’s responses:

- The use of proper attire (gloves, head gear, aprons, and double-breasted jackets)
- Colour coded cutting boards for different food items
- Always keep track of expiry dates on all food items
- Sectioned kitchen, that is, hot and cold food are prepared in separate sections of the kitchen and not mixed.

In addition, the head Chef, mentioned that food items such as meat, must be ‘vacuum packed’ that is, “packaging to remove air before sealing to retain the quality and freshness of meat, for it to last longer and to avoid contamination”. Moreover, the chef mentioned a lack of reusing off-cuts from certain food items contribute to food waste. “Off-cuts may be used for food items such as soup and/or pizza toppings”. However, Rockets Parkhurst are conscious of checking expiry dates when stock is received from suppliers, especially after the lockdown imposed due to the Covid-19 outbreak. The brand is not always completely assured of the quality of the stock at receiving stage, however, there is a process of sampling certain food items, like fish and meat, to determine the quality thereof. After determining the quality or lack thereof, the whole batch is scheduled to return to the supplier for a refund or fresh batch. , It is evident from the findings that there are no operational systems in place to ensure precaution to eliminate or minimize the contamination of food. In response to the question on the involvement of management at production level, the manager mentioned that “it is the responsibility of the ‘back of house’, meaning the head chef to manage the production of food. However, management seldom form part of food production”. The above findings suggest that there are operational systems in place to ensure the elimination or prevention of contamination at Rockets Parkhurst. And that

because the head Chef reports directly to management and it is their responsibility to ensure excellent levels of food production in the kitchen, management seldom checks up on the production of food. Moreover, if it is discovered that a sample of a food item is not up to standard, it is the Chef's responsibility to report such to management, for a return to be scheduled. Food contamination occurs when food is not put back into the refrigerator after use, when placed on unclean surfaces or mishandled. The research findings indicate a lack of proper meal planning as contributing to food waste. The over production of food leads to food waste at consumer level. And based on the literature review, the findings concur with the findings of Dzumbunu (2017), in that food waste is immanent in product control and handling and that food waste at the retail stage of the supply chain is caused by poor stock management processes. The research findings indicate the over production of food at Rockets Parkhurst, which leads to food waste since certain food items are to be consumed on the day of preparation and cannot be served after 24 hours. This indicates an agreement with FAO (2019), which believes that the causes of food waste at the retail level are associated with poor meal planning and purchasing in excess.

6.6 Summary of main findings



Figure 2. Main findings in gear format

Source: The researcher

Food safety protocols

- The use of proper attire
- Colour coded cutting boards
- The tracking of expiry dates
- Sectioned kitchen for cold and hot food items

Strategies to minimise food waste

- The donation of food
- Education on product knowledge
- Re-usage of off-cuts
- Strict quality control measure be put in place

Meaningful brands

- Personal benefits
- Collective benefits
- Functional benefits

6.7 Suggestions

- Accountability- staff to account and take responsibility for wrongdoing
- Instil strict control measure when handling or receiving stock from suppliers
- Relook at all challenges and rectify them

6.8 Conclusion

This section of the research firstly highlighted the data analysis method employed, secondly, the participant demographics where presented in a table format, it further presented the themes and sub-themes of data collected. This was followed by a discussion of the interview with the manager and head chef, moreover a highlight of food waste protocols adhered to by the brand. In addition, it summarised the main findings in gear and presented suggestions made by the participants. The section ended with a conclusion.

7. THE DISCUSSION OF RESULTS

7.1 Introduction

This chapter will present the findings of the research study conducted through in-depth interviews with staff members, a summary, and suggestions by staff the members. This will be followed by findings from interviews with consumers of Rockets Parkhurst and their suggestions. It will further discuss findings in relation to the research question. Moreover, it will highlight the major themes and sub-themes identified through data collection and conclude with a comparison of current findings with the literature reviewed.

7.2 Findings from waiters, waitress and cleaner

Through the discussions with the staff of Rockets, Parkhurst, the leading themes were **people** and **process**. The sub-themes are like those found through the interviews conducted with the manager and head chef. The staff mentioned the activities of mismanaging food in the kitchen, wherein burned food, big portions, the incorrect placing of orders, the over or under cooking of food as contributing factors to food waste. The staff had a general knowledge of what food waste is and the only way they respond to food waste, is by throwing it in the bin. The current Covid-19 pandemic and general bacteria have been raised as reasons to throw away food. In response to the types of secondary packaging used for take-aways, participant 7 mentioned that “when packaging food for take-away, staff do not always remember to separate the different food items, to keep the quality standard and ensure food does not get mixed up or discoloured”. The second theme was process. The findings suggest that there is a lack of product knowledge from staff, in terms portion sizes. Most respondents mentioned big portions of food as a contributing factor to food waste. There was an acknowledgement of a lack of knowledge around food portions to advise consumers when placing orders. Participant 4 mentioned that he takes it upon himself to ask consumers reasons behind left over food, and the usual response is “I am full-up, this was too much food”. The findings of this research concur with those of (Dzumbunu, 2017), that states that at distribution centres, food waste is immanent in product control and handling. Furthermore, (Dzumbunu, 2017) asserts that at retail stage of the supply chain, human beings have a significant influence on food waste, staff

training, following proper procedures and the attitude of staff have an influence food waste. it can be concluded that Rockets Parkhurst's food waste management process play a role in food waste at consumer level.

Participant 3: once the incorrect order goes out to a table, it gets thrown out into the bin even when the customer has not touched it. This is due to bacteria in the air and Covid-19.

Participant 3: Food items such as cheese, bacon, salsa, pregos and chorizos have a short life span and should be packed in sealed plastics, to retain them.

Participant 7: Staff should know and understand their product portions to advise customers when placing orders. This will avoid food waste by customers.

7.3 Summary of findings and suggestions by staff members

The common thread in the above findings, was that food leftover by consumers ends up in the bin and that staff are not allowed to consume it nor hand it over to people in need. The participants had minimal understanding of what food waste constituted and gave differing views to the researcher when posed with this question. The common response was an over-production of food and negligence in managing food in the kitchen. The major suggestion was that left-over food be offered to the car guards within the precinct. This was because car guards within the Parkhurst precinct occasionally ask for food. And that at times, food is thrown away while still in good condition. From the research findings, it is evident that the staff and consumers of Rockets Parkhurst are not fully aware of the current and future implications and effects of food waste on the continent. One respondent stated that food waste is inevitable and that we should live with it. This implies a lack of awareness and the possibility of changing behaviour and attitudes. In addition, five out of seven staff members of Rockets Parkhurst added that burned food, the incorrect placing of orders, big portions of food and incorrect packaging of food lead to more food waste

7.4 Findings from the consumers

The consumers of rockets Parkhurst indicated a general understanding of food waste when posed with the question on what they understand to be food waste. They respond differently to food waste and avoid it by not over purchasing food at home. Most of the participants in this group were students and frequently eat-out. They rated the quality of food as generally good but not “wow”. Of the ten participants, four were there for the first time in the company of a friend. In response to the question: “would you care if Rockets Parkhurst disappeared or ceased to exist, and why?

Respondents 1 and 2: “We would not care because life will go on”.

Respondent 3: “I would not care much for this one but the one in Bryanston, yes because of the night life it offers”

Respondent 6: “I would not lose sleep”, more variety to choose from here in Parkhurst.

In response to the question: “what value does Rockets Parkhurst add to your life”?

Respondent 6: “none, simply none”.

Respondent 8: “social value, great and fun happy vibe”.

Respondent 9: “great ambience and good food”.

The figure below highlights the three pillars identified by the Havas Group in relation to meaningful brands.



Figure 3. The 3 pillars of meaningful brands

Source: The Havas Group. 3 pillars of meaningful brands.

From the findings above, one can deduce that Rockets Parkhurst caters to different benefits and needs of consumers within different demographics as highlighted by the three pillars of the Havas group. Through the research findings, it is evident that Rockets Parkhurst provides more of a functional benefit compared to the rest of the benefits. Functional benefits have to do with the brand promise and improving the lives of the consumers. These functional benefits are built on the vision, values, and mission statements of the brand. They form part of the brand's competitive edge to differentiate it from its competitors. The brand will have to relook strategies to improve on the personal and collective benefits of consumers to become a brand with value, impact and meaning. The research findings further highlighted the need for more salad and/or vegan options, a variety of sea food dishes, turkey, or duck, offer different portions to cater to different consumer needs. That is, Rockets Parkhurst should offer options that suit the customer's needs instead of offering standardised portions of food, that end up in the bin. The common thread was that Rockets Parkhurst could offer left over food to people in

need (car guards, orphanages, street kids, etc.) and create awareness around food waste.

7.5 Suggestions

- Educate staff on the different portions of food (portion sizes).
- Create a welcoming atmosphere to accommodate young mothers, their kids and family at large, for that outdoor experience.
- Rockets Parkhurst to offer fine dining and night life experiences, instead of just fast food.
- More variety on the menu (fish, salads, vegan options, duck and turkey)

7.6 Findings of the current research in relation to the research questions

7.6.1 The research question and discussion: What is the relationship between food waste management processes at Rockets Parkhurst and food waste at consumer level?

The factors identified as possible causal relationships between food waste management processes and food waste at consumer level within Rockets Parkhurst are people, machinery, process, and lack of product knowledge. The table below illustrates the themes and sub-themes of the research results. As highlighted in the previous section. The literature reviewed highlighted the top three themes and a comparison will be discussed in the next section.

Table 2. Themes and sub-themes

Theme	Sub-theme 1	Sub-theme 2	Sub-theme 3
People	Mismanagement of food	Incorrect placement of orders	Lack of knowledge of the implications of food waste
Machinery	Old storage facilities	Maintenance	
Process	Over production of food	Stock management	Mishandling of stock
Lack of product knowledge	Portion sizes	Product packaging for take-aways	Reusage of off-cuts
The donation of food	Feed the communities in need	Repurpose waste for compost	Offer to staff
Meaningful brands	Personal benefits	Collective benefits	Functional benefits

The themes and sub-themes above indicate a link between food waste management processes and food waste at consumer level within Rockets Parkhurst. The link is evident in the mismanagement and general processing of food by back office, the incorrect placement of food by staff, a lack of product knowledge and of operational systems to ensure the elimination or minimization of food contamination.

This section of the research will highlight similarities between the findings and literature reviewed. The similarities will be highlighted into the following headings: **People, machinery, process** and followed by new findings, highlighted into the following headings: **the lack of product knowledge, donation of food and meaningful brands.**

People

The literature findings of Dzumbunu (2017) highlighted that at retail stage of the supply chain, human beings have a significant influence on food waste and at retail level, staff training, following proper procedures and the attitude of staff have an influence food waste. The research findings of this study, however highlighted this theme as the mismanagement of food by staff, the incorrect placement of food orders and the lack of product knowledge as implications for food waste at Rockets Parkhurst.

Machinery

The literature reviewed indicated significant effects of the breaking down and lack of maintenance of machines to be a contributing factor to food waste. However, at retail stage, the findings did not show that food waste was because of machinery, although faulty freezers resulted in food waste (Dzumbunu, 2017). The findings of this research study do not highlight significant faults with the storage facilities at Rockets Parkhurst. The indication was that the storage facilities were in good condition and serviced monthly. Therefore, the findings concur with those of Dzumbunu (2017).

Process

The literature findings of Flanagan et al. (2020) argue that food losses and waste occur due to multiple factors but are mostly driven by poor infrastructure and

packaging, inadequate equipment, behavioural drivers, lack of awareness, knowledge, poor planning on supply and demand marketing strategies. Furthermore, the FAO (2019) states that processing and packaging contributes towards the preservation of foods and that food losses may be due to technical malfunction or human error. The current research study discovered that the over production of food, mismanagement, and mishandling of food at Rockets Parkhurst contributes to food waste at consumer level. This concurs with the literature review findings.

7.6.2 The highlight of new findings

This section of the study will highlight the new findings from the data collected through in-depth interviews with the staff and consumers of Rockets Parkhurst. The themes identified were, **lack of product knowledge**, the **donation of food** and **meaningful brands**.

The lack of product knowledge

The literature findings highlighted that at store level prawns (considered to be a raw material) are not cooked in full as the heads are cut off and thrown away resulting in food waste whereas they could be reworked into another product like fish pops. This concurs with the suggestion of re-using off-cuts to prepare other meal items, instead of throwing them away. The current research study discovered a lack of knowledge of portions of food to contribute to food waste. The evidence was highlighted by most staff members. The consumers are not able to finish the food due to big portions, the response is usually that they are full or that the food was a lot. Although packaging did not show significant impacts on food waste in this study, it was highlighted as a precautionary measure when packaging food for take-away and as secondary packaging.

The donation of food

Sixteen out of the seventeen participants interviewed, suggested food donations to feed communities. This theme came as the number one suggestion in response to suggestion on minimising food waste. The participants highlighted what the findings of the WWF (2017), indicates, in that "In south Africa, tonnes of millions of food go to waste annually and the persistence of hunger and nutrient deficiencies" evidenced by the (WWF 2019). Therefore, Rockets Parkhurst may

need to relook the strategies to develop a culture and systems to minimise food waste, educate staff and consumers on ways to minimise food waste and perhaps start a donation campaign to feed communities.

Meaningful brands.

Through the research findings, it is evident that Rockets Parkhurst provides more of a functional benefit compared to the rest of the benefits. Functional benefits have to do with the brand promise and improving the lives of the consumers. These functional benefits are built on the vision, values, and mission statements of the brand. They form part of the brand's competitive edge to differentiate it from its competitors. The brand will have to relook strategies to improve on the personal and collective benefits of consumers to become a brand with value, impact and meaning.

8. CONCLUSION AND RECOMMENDATIONS

8.1 Introduction

This section of the research report will summarise the main conclusions of the study and highlight recommendations relevant for the brand to take note of. And it will end with recommendations for further research.

8.2 Conclusions of the study

The interview process made evidence in the discovery of food waste management processes in relation to food waste at consumer level within Rockets Parkhurst through the discussion of highlighted themes and sub-themes. Each theme serves an important purpose to food waste management; however, the findings cannot be generalised to all QSRs or other restaurants within the Parkhurst precinct. Taking into consideration the discussions with participants, the researcher finds it safe to conclude that there is a causal relationship between food waste management processes and food waste at consumer level within Rockets. In particular, the over production, mismanagement of food, a lack of product knowledge by staff and the incorrect placement of orders. However, the brand still holds a significance place in certain participants through the creation of good, fun and happy vibes, which emphasises more reason for the brand to relook at

strategies to maintain and elevate these feelings to those of impact, significance and meaning. Basically, the brand needs to reach the consumer levels of collective and functional benefits. Lastly, the management of Rockets Parkhurst may or may not use the evidence found by the current research study to relook strategies to develop a culture or systems of food waste management.

9. Ethical considerations

"Ethics are a matter of integrity on a personal level. A researcher who acts with integrity adheres to ethical principles and professional standards that are essential for practising research in a responsible way" (Du Plooy-Cilliers et al., 2014:262). Wagner et al. (2012:62) define "ethics as an issue that must be considered at every step of the research design and implementation process".

Informed consent: It is the responsibility of the researcher to inform the participants that they are taking part in a research study, what will be expected from them, how their identities and personal information will be protected and how the research results will be used. The participants should give consent prior to the research being conducted (Du Plooy-Cilliers et al., 2014).

Collecting data from participants: when collecting data from participants, it is the responsibility of the researcher to create an atmosphere that is comfortable and safe for their psychological and physical wellness. The researcher should not waste participants time and should explain to them how their personal or sensitive information will be kept confidential (Du Plooy-Cilliers et al., 2014).

Dealing with sensitive information: The researcher has a duty to protect the participant's sensitive information as a matter of principle and not let personal feelings obstruct them (Du Plooy=Cilliers et al., 2014).

Providing incentives: the provision of such incentives may prejudice the researcher's results by firstly, not affording the initially identified population sample an opportunity to participate, thereby distorting the research results. And secondly, participants may consciously or subconsciously respond in favour of the researcher (Du Plooy-Cilliers et al., 2014).

Avoiding harm: a researcher should always aim to cause no harm to participants; however, this may not always be the case. There will be instances when participants will be required to revisit an emotionally draining period in their lives or asked embarrassing questions in front of other participants (Du Plooy-Cilliers et al., 2014).

Confidentiality versus anonymity: confidentiality refers to not sharing identities of participants with anyone else. And anonymity, means that the researcher does not record the names of participants nor match the responses to participants (Du Plooy-Cilliers et al., 2014).

Avoiding deception: The researcher should uphold ethical standards at all levels of the research process and avoid deception as far as possible. And where it cannot be evaded, the researcher must inform participants of such deception and the reasons behind the deception. In addition, the participants should sign an acknowledgement, noting that they have been informed of the exact nature of the research and that their data may be used by the researcher. Moreover, participants should be briefed fully prior to the collection of data and afforded an opportunity to ask questions and get clarity on the matter (Du Plooy-Cilliers et al., 2014).

9.1 ETHICAL CONSIDERATION: RESEARCHER

Falsifying information: falsifying information is when the researcher intentionally forges or makes changes to the data collected in an unethical manner, for personal gain (Du Plooy-Cilliers et al., 2014).

Distorting results: distorting results is when the researcher purposely intensify certain noteworthy details of and/or misrepresent numbers with the intention to twist information (Du Plooy-Cilliers et al., 2014).

Allowing biases: bias in research is when the researcher aspires or anticipates a research result and manipulates results in the manner it is collected and interpreted. This specifically happens because of the researcher intensifying evidence to support desired results (Du Plooy-Cilliers et al., 2014).

Misusing information: this relates to the misuse of collected data by the researcher without the permission of the participants. The aforesaid data could be the sharing of personal information of participants to a third party for personal gain or marketing purposes. The researcher may share such data, only with the approval and consent of the participants (Du Plooy-Cilliers et al., 2014).

Inappropriate methods: inappropriate methods in research are those which may cause harm and / or are unbecoming to participants. Researchers should always uphold high ethical standards to protect all participants from any form of harm and to regularly question their intentions when deciding on research

methods and approaches in responding to research questions (Du Plooy-Cilliers et al., 2014).

10. Limitations and trustworthiness

10.1 Limitations

Limitations may be any foreseeable challenges for conducting a research study (Du Plooy-Cilliers et al., 2014). The researcher lacked financial, printing resources and ample time to collect the data. The data collection point was in Parkhurst and the method employed for this study was divided into two phases. The researcher had limited time to request permission from the data collection point and to collect the data. The researcher approached Rockets Parkhurst the day after receiving the ethical clearance letter. However, it was over a weekend, the brand's busiest period and the researcher was dismissed and told to come back the following Tuesday. The scope of the research was redefined due to the availability of one waitress. The researcher added a third waiter on the list of participants to make up for one waitress. Data collection was conducted over two days from the day permission was granted, which means the results cannot be generalised.

10.2 Trustworthiness

"Qualitative research can never be completely value free, but it is critical to enhance the trustworthiness and credibility of one's research" (Wagner et al., 2012:137). The researcher collected the data in an unobtrusive manner and observed targeted participants closely before approaching them to ask for permission to conduct the interviews. Basically, the researcher's aim was to observe and collect data from participants without interfering with the setting or influencing them to act differently. Furthermore, the data collection process was safe and non-threatening and the researcher ensured an open, trusting, and relaxed interaction with participants. And lastly, all participants were reassured of the confidentiality and sensitivity with which the data collected, and personal information will be treated.

10.3 Recommendations for further research

One of the major findings of the current study relates to the assertion of the lack of awareness on the current and future impacts of food waste, including an apparent limited focus on highly-automated and advanced cold storage facilities to prevent food waste. It is the hope of the researcher that this research study sets off a need for further research focusing on strict regulations of food safety protocols, and initiatives to educate communities on ways to combat food waste. The significant evidence around diet-related health problems, such as obesity and non-communicable diseases (NCDs), the persistence of hunger and nutrient deficiencies by the (WWF, 2019). And the WWF (2017) which examined the consequential economic and environmental losses that occur from wasted food while millions of South Africans suffer from hunger and malnutrition are troublesome factors. In addition, "it is estimated that more than 40% of children in South Africa lack Vitamin A, leading to enfeebled immune systems and that 10% of those children lack iron, leading to weakness and fatigue". It would thus be valuable for the brand to relook strategies to develop a culture or systems of food waste management.

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APPENDIX A: The actual Research Instrument – Interview Guide

Dear participant,

The interview guide below is the instrument chosen for a proposed Postgraduate Diploma in Contact Brand management research study, whose purpose is to analyse and evaluate the role food waste management processes have on food waste at consumer level within Rockets Parkhurst, Johannesburg. The overall objective of this study is to:

- To determine the causal relationship between food waste management processes and food waste at consumer level.
- To identify possible strategies to reduce food waste at both QSR and consumer level, to achieve the meaningful brand status.

You have been identified as a highly suitable possible respondent to the below set of interview questions on food waste management processes. You are considered critical for direct or indirect input and influence into the food waste management processes. Your valuable knowledge will add insights into the food waste management processes employed by Rockets Parkhurst. The selection criteria used to identify participants, including yourself, was based on the assumed knowledge, level of influence and/or involvement on food production and/or handling within Rockets Parkhurst.

Please answer all the questions below by marking a cross in the appropriate box.

1. Please indicate your gender.

Male ☐

Female ☐

Other _____

2. Please indicate your racial identification

- Black African ☐
- Coloured ☐
- White ☐
- Indian ☐
- Asian ☐
- Other _____

3. Please indicate which of the languages below you speak in your home.

- English ☐
- Afrikaans ☐
- IsiXhosa ☐
- Sesotho ☐
- IsiZulu ☐
- Setswana ☐
- Xitsonga ☐
- Tshivenda ☐
- SiSwati ☐
- North Sotho ☐
- IsiNdebele ☐
- Other _____

The researcher will ensure that personal and sensitive information of participants is kept confidential and will only be referred to as participant 1 or 2. Further to this, the researcher will ensure no harm is caused to participants during the interview. Moreover, the researcher promises to not falsify, distort, or manipulate the data collected. And the data collected will not be shared with third parties without the permission and consent of the participants. The researcher will uphold ethical standards at all levels of the research process and avoid deception as far as possible. The researcher will begin the interview by asking the below questions:

The research interview guide: Manager and Head Chef

1. Please define what you consider to be food waste?
2. What is your response to food waste?
3. What food safety protocols do you adhere to?
4. What types of storage facilities do you use to store food?
5. What is the condition of the storage facilities?
6. What types of secondary packaging do you use to store food after it is received from a supplier?
7. How do you decide when to order new stock?
8. When you receive stock, how do you make certain that the stock is in good condition?
9. Is management involved in the production of meals?
10. What are your suggestions to minimise food waste?

The research interview guide: Waiters, Waitresses and a cleaner:

1. What do you understand to be food waste?
2. How do you respond to food wasted by consumers?
3. What types of secondary packages are used for takeaways?
4. What happens to the food wasted by consumers?
5. What are your possible suggestions to minimise food waste?

The research interview guide: Consumers:

1. What do you understand to be food waste?
2. What is your personal response to food waste?
3. How would you rate the quality of food at Rockets Parkhurst?
4. How often do you frequent Rockets Parkhurst?
5. What are your possible suggestions to minimise food waste at restaurants?
6. Would you care if Rockets Parkhurst disappeared or ceased to exist, and why do you say that?
7. What value does Rockets Parkhurst add to your life?
8. Would you recommend Rockets Parkhurst to family and friends, and why?

9. What do you think Rockets Parkhurst could improve overall?

Thank you once again for your willingness to participate in the research study on the analysis and evaluation of the role food waste management processes have on food waste at consumer level. I greatly appreciate your willingness, honesty, and time to meet with me for the interview and to share your knowledge and insights on the topic, which will be extremely informative and useful.

Yours Sincerely,

Mpho Cindy Singo

APPENDIX B.



Gatekeepers letter/ Request to conduct research

Dear Sir or Madam,

I am writing to ask your permission to conduct research at Rockets Parkhurst.

My name is Mpho Cindy Singo, a Post Graduate Diploma in Contact Brand Management student at the Vega School of design, a brand of the Independent Institute of Education (IIE). The research I wish to conduct for my Post-Graduate Project, is titled

“An analysis and evaluation of food waste management processes and the role on food waste at consumer level within Rockets Parkhurst”.

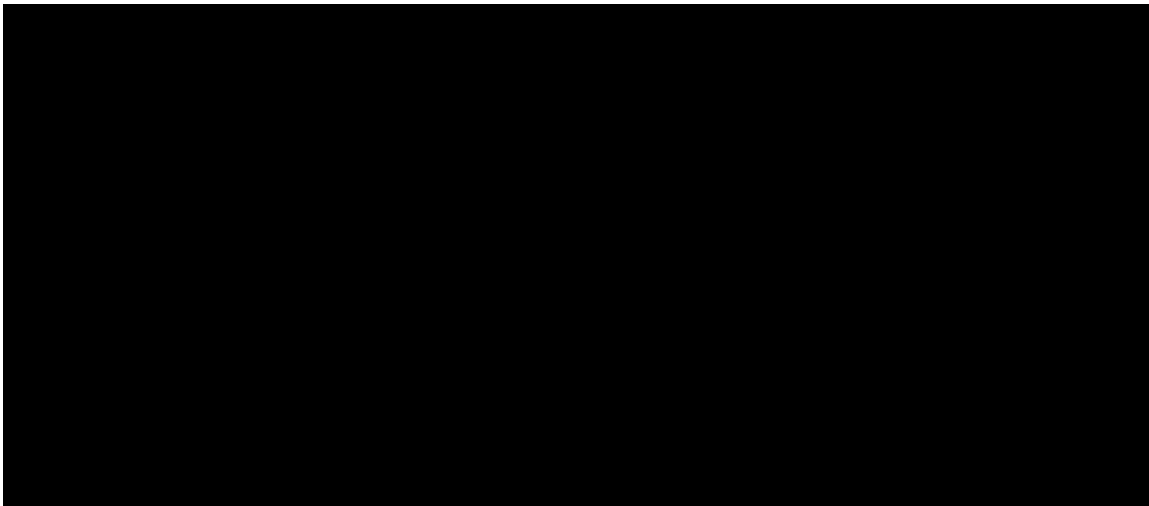
The research study is for purposes of analysing and evaluating food waste management processes and the role on food waste at consumer level within Rockets Parkhurst, with the aim to identify strategies to minimise food waste at both Rockets Parkhurst and consumer level. The nature of your company’s participation will be to respond to questions related to food waste management processes through in-depth interview questions. The questions will be open-ended, descriptive, and non-directional but allow a conversational and natural flow. The research will be conducted in two phases, both will employ in-depth interviews. However, Phase one will involve the manager, the head chef and three waiters, one waitress and a cleaner. It will take place at Rockets Parkhurst, at a suitable time for participants. The reasons for choosing these participants assumes that they may have greater insights and knowledge on food waste management processes. The interviews will take between 30 and 45 minutes and will be recorded to minimise the falsifying or distorting of

information. Phase two will be interviews with consumers of Rockets Parkhurst. These participants will include female and male consumers of Rockets Parkhurst. The researcher will ensure that personal and sensitive information of participants is kept confidential and will only be referred to as participant 1 or 2. Further to this, the researcher will ensure no harm is caused to participants during the interview. Moreover, the researcher promises to not falsify, distort, or manipulate the data collected. And the data collected will not be shared with third parties without the permission and consent of the participants. The researcher will uphold ethical standards at all levels of the research process and avoid deception as far as possible.

Yours sincerely

Student: Mpho Cindy Singo

Supervisor: Mbali Rametse



APPENDIX C.



Gatekeepers Approval

Consent form to conduct research at my company	
I,	
Representative of	
My capacity:	
Give my permission thatmay conduct research at Rockets Parkhurst. This research has been explained to me and I understand what participation in this research will involve. I reserve the right to withdraw this permission at any time. I also understand that research reports are available in the library and IIE Repository unless I indicate below that I would not	
Select below:	
• I request that my company's identity be kept confidential. • My company can be identified in the study. • The study may never be available on the repository. • The study may be made available on the repository. • The study may be made available on the repository after months.	
Signature	Date

APPENDIX D.



CONSENT FORM TEMPLATE

Explanatory information sheet and consent form for participants
To whom it may concern, My name is Mpho Cindy Singo and I am a student at Vega School of design. I am currently conducting research under the supervision of Ms. Mbali Rametse about analysing and evaluating the role of food waste management processes have on food waste at consumer level within Rockets Parkhurst. The aim of the research will be to determine possible causal relationships between food waste management processes and food waste at consumer level and identify possible strategies to minimise food waste at both Rockets and consumer level. I hope that this research will enhance our understanding of the current and future impacts of food waste and assist us to come up with new meaningful and impactful policies and / or strategies to create awareness around food waste. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.
What will I be doing if I participate in your study?
I would like to invite you to participate in this research because it will assist me in completing my Postgraduate studies in Contact Brand Management. If you decide to participate in this research, I would like to ask questions related to food waste management processes within Rockets Parkhurst. You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.
Are there any risks/ or discomforts involved in participating in this study?
Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your level of awareness around food waste management. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.
Do I have to participate in the study?
• Your inclusion in this study is completely voluntary. • If you do not wish to participate in this study, you have every right not to do so. • Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.
Will my identity be protected?
I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a

professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at the Vega School of design, will have access to your interview information. I would like to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

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

What happens if I have more questions about the study?

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

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

[REDACTED]

[REDACTED]

APPENDIX E:

Consent form for participants	
I, _____, agree to participate in the research conducted by Mpho Cindy Singo, which aims to gather insights into how Rockets Parkhurst manages food waste and to attempt to identify strengths and weaknesses in relation to the food waste management processes. The study will also aim to determine ways to create awareness on food waste management at consumer level. This research has been explained to me and I understand what participation in this research will involve. I understand that:	
• I agree to be interviewed for this research.	
• My confidentiality will be ensured. My name and personal details will be kept private.	
• My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research.	
• I may choose not to answer any of the questions that are asked during the research interview.	
• I may be quoted directly when the research is published, but my identity will be protected.	
Signature	Date

APPENDIX F.



CONSENT FORM FOR AUDIO OR VIDEO RECORDING

Consent form for participants	
I, _____, agree to allow Mpho Cindy Singo to audio record my interviews as part of the research which aims to gather insights into food waste management processes and the role on food waste at consumer level within Rockets Parkhurst. This with the aim to try and identify strategies to minimise such food waste at both Rockets Parkhurst and consumer level This research has been explained to me and I understand what participation in this research will involve. I understand that: • My confidentiality will be ensured. My name and personal details will be kept private. • The recordings will be stored in a password-protected file on the researcher's computer. • Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.	
Signature	Date