



**Investigating the “Health Halo Effect” on South African consumers
created by nutrient content claims on breakfast cereal packaging**

By

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A research project submitted in fulfilment of the requirements for the

BA Honours in Strategic Brand Communication

at the

Independent Institute of Education: Vega School

Subject code: RES8419

Supervisor: Samuel Enow

Submission date: 29th November 2021

Word count: 14 802

(Excluding cover page, list of figures, table of contents, reference list and annexures)

ABSTRACT

To set themselves apart from competitors, food manufacturers regularly increase product attractiveness by emphasising positive aspects through claims that generally enhance overall product appeal. Breakfast cereal manufacturers tend to use this marketing approach, where potentially misleading nutrient claims are printed on product packaging. Ultimately, these deceptive nutrient content claims may create a 'Health Halo Effect', causing consumers to infer generalised perceptions of overall product healthfulness based on these claims. In the long term, this deception can negatively impact consumer health due to the consumption of cereals that are not as "healthy" as advertised to be. Research findings can raise awareness around the deceptive nature of these claims and grow consumer knowledge in the interpretation of cereal nutritional information. Following a qualitative interpretivist approach, this study aimed to investigate factors contributing to the influence of this 'Health Halo Effect' on South African consumers brought about by nutrient content claims on breakfast cereal packaging. The research process involved one-on-one semi-structured interviews with nine participants. The shared characteristics of the population included South Africans who regularly purchased and consumed breakfast cereals. Additionally, the participants were evenly divided between Generation X, Y and Z. Using a thematic analysis approach to analyse the research, three themes were found to address factors that contribute to the influence of the 'Health Halo Effect'. These include the lack of knowledge when interpreting and reading nutritional content information, nutrient content claims influence consumer decisions when purchasing breakfast cereal, and assumptions about cereal healthfulness are made without sufficient information. An additional theme found that participants possessed a certain level of awareness towards the unhealthy aspects of cereal and the potential deception of content claims. Ultimately, this awareness may minimise the influence of the 'Health Halo Effect' on participants.

Keywords: "Heath Halo Effect", nutrient content claims, front of packaging labels, breakfast cereal packaging, South African consumers.

DECLARATION

I hereby declare that the research report submitted for the BA Honours in Strategic Brand Communication degree to The Independent Institute of Education is my own work and has not previously been submitted to another University or Higher Education Institution for a postgraduate qualification.

Signature:



Date: 29th November 2021

ACKNOWLEDGEMENT

I would like to take this opportunity to acknowledge everyone who contributed to the completion of this study. Expressing my deepest gratitude to:

- Donna Bernhardi, for your invaluable contribution and support during the last few weeks before submission.
- To my fiancé, who has always displayed unwavering patience and encouragement throughout my academic career.
- And finally, to my parents for their continuous support, motivation, and for providing me with all the tools I have needed to get me to where I am today. I am who I am because of you.

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1. INTRODUCTION

1.1. Contextualisation

The average consumer is bombarded with information, encountering copious amounts of marketing messaging every day (Kalyanasundaram, 2020; Rowntree, 2017). As a “form of persuasive communication”, marketing aims to capture consumer attention and persuade them to purchase a product over the competitors’ (Lake, 2021). The use of product packaging and labelling has become immensely important within marketing practices. These assist companies and manufacturers in encouraging “potential buyers to purchase the product” by capturing consumer attention (noticing the product) and providing “useful information regarding the product” for shoppers to make informed purchase decisions (Frohlich Calio, 2014; Loewenberg, 2017; Lumen, 2017).

However, this has “not stopped marketers from making dubious claims” as most often marketing strategies focus on sales growth, where marketers “couldn’t care less if you’re tricked by words and images on the box” (De Lange, 2020; Hall, 2015; Frohlich & Calio, 2014).

To set themselves apart from competitors, marketers and manufacturers within the food industry regularly increase the attractiveness of products by emphasising positive aspects to enhance overall product appeal. Generally referred to as claims, these statements are either true or false (Long, Oppy & Seely, 1997; Wells, Moriarty & Burnett, 2006).

In 1984, Kellogg’s was the first food manufacturer to include nutrition and health claims on their cereal packaging (Kim, Cheong & Zheng, 2009, cited in Van Buul & Brouns, 2013). These claims involved linking high-fibre foods, such as their all-bran cereal, to cancer prevention claims (Burros, 1986). Mayer (1984) wrote that federal regulators classified the claim as misleading, as the manufacturer did not substantiate the claim with relevant information. Ultimately, the claim misled consumers into thinking that the cereal was “a smart choice”, “healthier than other cereals” and would lead to cancer prevention (Hall, 2015).

These deceptive claims used by manufacturers create a “Health Halo Effect” (HHE), causing consumers to infer generalised perceptions of overall product healthfulness based on the claims (Brownell & Horgen, 2004; Ikonen, Sotgiu, Aydinli & Verlegh,

2019; Nestle, 2002; Pomeranz, 2011; Schuldt, Muller & Schwarz, 2012). Ultimately, victims of this deceptive marketing do not get what they paid for, “and that’s a failure of the marketplace” (Frohlich & Calio, 2014). In the long term, this deception can negatively affect consumers’ health “due to the consumption of products that are not as harmless as advertised” (Muela-Molina, 2014: 150).

1.2. Rationale

A global epidemic of “diet-related diseases” is on the rise due to the immense overconsumption of trans-fats, saturated fats, salt and sugar (World Health Organization, 2020). The WHO (2020) reports that “unhealthy diets are responsible for almost one-third of today’s global disease burden”; with chronic diseases, including obesity, stroke, type II diabetes, heart disease and certain cancers plaguing society (Denton, 2016). Resulting from “biological dysfunction”, these diseases are caused by the overconsumption of unhealthy ingredients (Chadwick, 2004; Denton, 2016; Ogundimu, 2018). Ultimately, there is a strong correlation between chronic illness and nutrition (Denton, 2016).

To curb this epidemic, consumers “need to know how multiple nutrients in a diet interact and affect the human body’s functions” (Denton, 2016). This corroborates Arsenault’s (2010: 1) statement that one approach to combatting obesity is to educate individuals about “nutrition and the nutritional components of the food they purchase”. Ultimately, educating consumers on these aspects will assist in the fight against obesity and other diet-related diseases.

Nutritional labelling intends to provide consumers with the necessary information to make educated and informed purchase decisions (Arsenault, 2010: 1). During extensive research the researcher found that cereal manufacturers, in particular, are guilty of making misleading and sometimes false claims when it comes to the nutritional aspects of their products (Rao & Wang, 2017). However, as many consumers share a lack of knowledge when it comes to nutrition, they may unconsciously be impacted by the HHE due to these deceptive claims (Jacoby, Chestnut & Silberman, 1977).

The researcher believes that the study will assist in growing consumer knowledge when it comes to the interpretation of cereal nutritional information, guiding and motivating individuals to make informed purchasing decisions regarding breakfast

cereals. Ultimately, the researcher aims to raise consumer and industry awareness around how breakfast cereal manufacturers and marketers (along with those within other food sectors) are, and have been, misleading and deceiving consumers through the HHE when it comes to nutrient content claims (NCCs) on cereal packaging.

1.3. Problem statement

Advertisers use deceptive marketing techniques involving NCCs on breakfast cereal front-of-package labels (FOPLs) (Steenkamp, 2015; Muela-Molina, 2014). These techniques create an HHE, which causes consumers to infer a generalised perception about the overall healthfulness of the cereal (Ikonen et al., 2019). This unreliable information blatantly misleads consumers into buying something they did not intend to purchase (Frohlich & Calio, 2014). In the long term, this deception can negatively affect consumers' health "due to the consumption of products that are not as harmless as advertised" (Muela-Molina, 2014).

1.4. Purpose statement and research questions

1.4.1. Purpose statement

Investigate factors that contribute to the influence of the "Health Halo Effect" on South African consumers brought about by nutrient content claims on breakfast cereal packaging.

1.4.2. Research questions

Primary question

- i. What factors contribute to the influence of the "Health Halo Effect" on South African consumers brought about by nutrient content claims on breakfast cereal packaging?*

Secondary questions

- ii. To what type of nutrient claim/s on breakfast cereal packaging are South African consumers most attracted?*
- iii. How do different generational consumer groups interpret nutrient content claims on breakfast cereal packaging?*

1.5. Objectives

Primary objective

- i. To investigate the factors contributing to the influence of the 'Health Halo Effect' on South African consumers brought about by nutrient content claims on breakfast cereal packaging.*

Secondary objectives

- ii. To determine the type of nutrient claim/s on breakfast cereal packaging that South African consumers are most attracted to.*
- iii. To investigate how different generational consumer groups interpret nutrient content claims on breakfast cereal packaging.*

2. LITERATURE REVIEW

2.1. Theoretical foundation

2.1.1. “Health Halo Effect”

The HHE theory is the underpinning concept of the current study, forming the foundation on which the study is built. The researcher aims to uncover the factors that contribute to the influence of this phenomenon when it comes to breakfast cereal NCCs.

In 1920, American psychologist Edward Thorndike defined the “Halo Effect” theory and phenomenon. The halo effect explains how initial impressions are formed based on a core quality or one piece of information possessing “favourable evaluative implications”; for example, attractive physical qualities. Ultimately, this effect significantly shifts and shapes how individuals interpret additional information, causing an over-generalisation and inference of favourable positive aspects (Fernan, Schuldt & Niederdeppe, 2018: 1426; Sundar & Kardes, 2015).

Two early studies on the halo effect focused on inferred personality trait stereotypes that individuals of varying attractiveness levels may possess, ultimately finding that people assume that people with higher physical attractiveness has “more socially desirable personality traits than unattractive people” (Dion, Berscheid & Walster, 1972: 285–287). These findings outline the halo phenomenon, where individuals formulate biased impressions of something – in this case, attractive individuals – from a limited amount of information that may objectively be incorrect and untrue (Burton, Cook, Howlett & Newman, 2014: 240; Eagly, Ashmore, Makhijani & Longo, 1991; Dion et al., 1972).

The halo effect manifests from heuristic processing in social psychology (Yudkowsky, 2007). Heuristics explain how simple cues or rules in the subconscious enable humans to make informed and quick decisions to “save cognitive resources” (Gigerenzer & Todd, 2000: 727; Iles, Nan & Verrill, 2018: 1309; Yudkowsky, 2007).

Sometimes there is a significant gap between nutritional claims and the truthful representation of nutritional information on food packaging (Chernev & Gal, 2010; Moorman, 1990). The reason is that manufacturers often increase the attractiveness of products by emphasising positive aspects in the form of NCCs to enhance overall

product appeal (Long et al., 1997; Wells et al., 2006). Therefore, the process of deciphering nutritional information and NCCs on FOPLs as either being true or false is a demanding task that requires “high level[s] of motivational and cognitive resources” (Gomez, 2013: 152). Due to this, consumers tend to substitute the presented nutrient information with preconceived, misinformed understanding. Consequently, this use of heuristic processing may result in biased perceptions and inaccurate inferences about a product’s overall healthfulness (Sütterlin & Siegrist, 2015; Yudkowsky, 2007). When exposed to favourable NCCs (such as “healthy” and “no cholesterol”), consumers begin to infer positive evaluations of other non-featured nutrient claims (such as protein levels, fat levels and nutrient content levels) (Andrews, Netemeyer & Burton, 1998: 63).

The HHE may become problematic when unreliable and unclear FOPL content claims mislead consumers into unintentionally purchasing products they did not intend to purchase (Frohlich & Calio, 2014). In the long term, this can negatively affect consumers’ health “due to the consumption of products that are not as harmless as advertised” (Muela-Molina, 2014: 150).

2.2. Review of literature

2.2.1. The impact of health halos and nutrient content claims on consumer purchase behaviour

A quantitative study conducted in the United States (US) by Bui, Tangari and Haws (2017) examined how the actual and intended consumption of food is impacted by and interacts with package partitioning and perceived healthfulness. Over 300 participants took part in an online study, a short survey and a behavioural laboratory test. Findings suggested that an HHE, where participants tended to consume more of what they assumed to be “healthier” food, was not split into serving sizes. This halo effect led to the consumption pattern of eating more when the food was “healthier”. Non-partitioned products considered unhealthy saw consumers controlling or regulating their consumption (Bui et al., 2017). Altogether, these findings uniquely contribute to the HHE studied by the researcher, showing that this effect does indeed impact the amount of food consumed by individuals.

Additionally, a quantitative study conducted in the US by Iles et al. (2018), in a web-based questionnaire with 5 076 participants, investigated whether perceived

healthfulness impacts the relationship between consumer behaviour and nutrient claims. Results showed that NCC presence increased overall perceived healthfulness in otherwise unhealthy products and decreased perceptions towards less healthy attributes (Iles et al., 2018). With a similar purpose as the current study, these findings could directly lay a foundation for the research results to come.

Similarly, another US quantitative study conducted by Fernan et al. (2018) investigated whether NCCs led consumers into assuming overall product healthfulness and if these effects were more influential when nutrient information was embedded within the product title or presented as NCCs. A participant group of 274 students aged 18-30 participated in a close-ended question judgement study. Findings suggested that NCCs increased the products' perceived nutrient level, also increasing perceptions of additional "healthy" nutrients not claimed on the packaging (Fernan et al., 2018).

This research by Fernan et al. (2018) is very similar to the previously mentioned study conducted by Iles et al. (2018). This study elevates and extends the HHE by providing a more holistic view; instead of solely focusing on how NCCs create health halos, it focuses on how different claim layouts and marketing formats create the halo effect.

A quantitative interdisciplinary meta-analysis conducted by Ikonen et al. (2019) in The Netherlands focused on FOPL influences on consumer consumption and purchase behaviour, and how these labels impact consumers ability to identify healthier items. Results collected from 114 research papers were generalised, compared and coded; after which 205 participants rated the coded data "in terms of perceived vice or virtue" (Ikonen et al., 2019: 366). Findings showed that FOPL content claims assisted participants in identifying and comparing products. However, FOPLs may create a misleading HHE, leading consumers to interpret health and nutrient claims as overall health indicators for both the vice (unhealthy) and virtue (healthy) products. Interestingly, the firm reliance on FOPLs caused consumers to pay less attention to the nutrient fact panel (NFP) on the back of the packaging (Ikonen et al., 2019). As a result, these findings complement and lay the foundations of the current study's understanding of the HHE, providing similar findings to the previously analysed study conducted by Iles et al. (2018).

Lastly, Agarwal and Roy (2020) conducted a quantitative study in India, exploring how halo labels on food packaging impact consumer perceptions, attitudes and purchase

intentions. A structured questionnaire with 150 responses revealed that halo labels significantly impacted participants' purchase behaviour and attitudes. At the same time, health claims and images developed holistic healthfulness views on products that may not be as healthy as perceived. Findings suggested that participants equally valued product taste and product health claims (Agarwal & Roy, 2020).

Exploring consumer perceptions and attitudes towards health halos aligns with the current study's purpose. However, being conducted quantitatively, the present qualitative study could produce an in-depth insight into different participant perspectives and opinions regarding these perceptions and attitudes, ultimately possibly providing a more holistic outlook on the subject.

2.2.2. The attitudes, understanding and levels of importance placed on nutritional information and labelling

Kempen, Bosman, Bouwer, Klein and Van der Merwe (2011) conducted a qualitative study in South Africa that explored consumers' reasons for reading food labels and how these labels influence consumer purchase behaviour. With a multiphase approach that involved 55 consumers of different age groups, findings suggested that participants read labels to assess health attributes, quality, nutritional value and personal benefits (Kempen et al., 2011). These results highlighted South African consumers' reasons for reading food labels and how labels influence purchasing behaviour. Similarly, the current study draws on similar foundational aspects, focusing on how South African consumers are impacted by NCC when reading labels on breakfast cereal packaging.

The following studies focus on the types of content claims consumers are attracted to and these claims importance.

First, Talati, Pettigrew, Kelly, Ball, Dixon and Shilton (2016) conducted a qualitative study in Australia that explored how 50 adults and 35 children of various ages made sense of and used evaluative (e.g. health star rating) and reductive (e.g. daily intake guideline) FOPLs. Grouped by gender, socioeconomic status (SES) and age, participants were divided into 10 focus groups. Findings were relatively consistent across genders, age and SES – indicating that a wide range of consumers process FOPLs in similar ways. Most participants preferred evaluative FOPLs to make daily

food consumption decisions, as these labels are easily understandable and assist consumers in creating effective and quicker product comparisons (Talati et al., 2016).

Second, Gezmen-Karadağ and Türközü (2018) conducted a qualitative study in Turkey that explored consumer use and opinions of health claims, nutritional claims and food labels. Face-to-face interviews took place with 1 200 participants aged 18 to 65. Results presented that both genders pay attention to food labels; however, the majority only sometimes read them. The most frequent nutritional claim read by both genders were low fat/fat-free and trans-fat free (Gezmen-Karadağ & Türközü, 2018).

Thirdly, a quantitative study conducted by Gracia and Barreiro-Hurlé (2019) in Spain analysed how various NCCs on two cereal products (biscuits and pastries) were ranked by consumers, assessing the perceived importance of each claim. The sample included 400 participants living in Aragon who were responsible for household food purchases.

Before recruiting participants, the researchers conducted direct observation supermarket field surveys to compile the most prevalent cereal nutritional claims. Participants then took part in a “direct ranking preference method” via an online survey that included the data and findings collected from the field survey. Results showed that participants preferred NCCs highlighting reduced unhealthy aspects of the product compared to claims highlighting nutritional or healthy aspects. The NCCs with the highest importance were “with no added sugar” and “reduced saturated fat” for most participants, whereas “reduced fat” and “source of fibre” claims differed depending on the product (Gracia & Barreiro-Hurlé, 2019).

A secondary question within the current study focuses on the types of NCC labels to which South African consumers are attracted. The above results of all three studies provide foundational insight applied by the researcher to the current research question as mentioned above.

Lastly, Nieto, Castillo, Alcalde-Rabanal, Mena, Carriedo and Barquera (2020) conducted a qualitative study in Mexico that explored perceptions, use and understandings of nutritional labelling and claims among different socioeconomic groups. Seventy-eight participants were recruited and split into 12 focus groups (according to SES level) that followed semi-structured guidance. Regardless of SES, findings show that participants struggled to understand nutritional labelling and term

technicalities in use, especially when using and understanding guideline daily amounts (Nieto et al., 2020). The current study has a similar qualitative approach to the study conducted by Nieto et al. (2020), providing a foundational frame of the views, perceptions and understanding of nutritional labelling and claims.

2.3. Conceptualisation

2.3.1. Primary key terms

“Health Halo Effect” (HHE)

The HHE, which draws on the psychological phenomenon of the halo effect, builds the foundation on which the current research stands (Magee, 2020). The current study focuses on how this HHE impacts three different generational groups of consumers who specifically purchase breakfast cereal in a South African context.

Food FOPLs frequently use NCCs such as “high in protein” or “sugar-free”, subconsciously drawing consumers’ attention to particular aspects of a product (Driver, 2016). Based on these specific and sometimes limited NCCs, consumers begin to infer an overgeneralised perception about the product’s overall healthfulness, perceiving that the product contains more nutrients (healthier aspects) and has fewer health risks (Burton et al., 2014; Chandon, 2012; Fernan et al., 2018; Ikonen et al., 2019).

Nutrient content claims (NCCs)

The current study focuses on the deceptive representation of NCCs that create health halos and investigates factors that contribute to the influence of these health halos on South African consumers.

Fernan et al. (2018) explain that specific claims may affect consumer product perceptions and purchase behaviours. These claims assist consumers in interpreting nutrient information; however, over generalisation of healthfulness may occur, leading consumers to infer an overall healthfulness on the product (Andrews et al., 2000; Ikonen et al., 2019).

Front of packaging labels (FOPLs)

The objective of FOPLs is to assist “consumers to correctly, quickly and easily identify products that contain excessive amount[s]” of unhealthy nutrients or ingredients such

as saturated fats, sodium and high levels of sugar (PAHO, 2020). Ultimately, these come in the form of NCCs, acting as a convenient and effective tool for consumers to assess nutritional information at the point-of-purchase decisions (FDA, 2010; Ikonen et al., 2019; Talati et al., 2016).

Sometimes, these NCCs provide unreliable and inaccurate information that blatantly misleads consumers into buying something they did not intend to purchase (Frohlich & Calio, 2014).

2.3.2. Secondary key terms

South African consumer interpretation of food labels

This theme directly relates to the current study's purpose statement that addresses how consumers interpret food labels.

A study conducted in Gauteng, South Africa by Kempen, Muller, Symington and Van Eeden (2012) focused on "the relationship between health awareness, lifestyle behaviour and food label". Findings were that some South African consumers could locate and read nutritional information; however, they lacked education towards understanding the information provided on food packaging labels. Ultimately, this showed that some South African consumers struggle to understand the nutritional information presented on packaging.

Front of packaging label content claim layout and formatting

This secondary term focuses on how words and formatting influence consumer assumptions and consumption surrounding food products.

Product packaging plays an essential role in marketing, assisting companies in encouraging consumers to "purchase the product" by capturing consumer attention and providing vital information to inform purchase decisions (Frohlich & Calio, 2014; Loewenberg, 2017; Lumen, 2017).

After pattern and colour, words on product packaging are an essential communication element (Wu, 2015). Word arrangement follows visual processes, placed at the visual centre of packaging where consumers' attention is first directed (Wu, 2015).

2.4. Gaps and flaws within the literature

There are several observed gaps within the above-mentioned reviewed literature.

First, all previous studies that addressed the HHE (the current study's foundational framework) followed a quantitative approach. Studies conducted on FOPLs focused on how these labels impact a wide range of consumers, "assuming that their perceptions of products and their healthfulness are fairly homogeneous" (Ikonen et al., 2019: 374). Multiple factors influence and attract consumers attention to packaging. However, individuals' subjective experiences and differences influence their perceptions, impacting how consumers assess NCCs on FOPLs (Ikonen et al., 2019). A more complex and holistic understanding of South African breakfast cereal purchasing behaviour can be developed by acknowledging these various collective realities.

Second, the researcher found that only one prior study took place in South Africa and there were very few studies that focused on a similar topic as the current study; therefore, forming a noticed gap as findings relating to previous studies conducted in other countries cannot be generalised and applied to a South African market. The prior South African study, conducted by Kempen et al. (2011) in Potchefstroom, explored consumers' reasons for reading food labels and the influences thereof. However, this study was positioned under the secondary conceptualised theme: attitudes, understanding and levels of importance placed on nutritional information and labelling, where literature under this theme only forms a foundation for the current study and does not provide research findings that directly link to the study's purpose, research questions and objectives.

The researcher did not find any studies addressing factors that contribute to the creation of the HHE, impacts of cereal NCCs and possible influences HHE created by NCCs have on South African consumers. However, these identified gaps ultimately addressed the current study's purpose, where successfully answering the study's research questions and objectives automatically addressed these gaps.

Third, most previous studies within the current study's context mainly focus on participant groups that vary in gender and/or socioeconomic status. Additionally, the researcher found no prior research on specific generational groups and their attitudes and experiences towards health halos and NCCs. The current study addresses these

gaps by focusing on a generational consumer spread and exploring generational attitudes towards NCCs and health halos on cereal packaging.

Lastly, most studies surrounding the HHE created by NCCs on the FOPLs of breakfast cereal packaging deals with children. The current study addresses this gap by focusing on adult consumers in generations X, Y and Z (no under-18s).

3. RESEARCH DESIGN AND METHODOLOGY

3.1. Research paradigm

The current study focuses on an interpretivist paradigm. According to Kivunja and Kuyini (2017), interpretivism allows for a subjective understanding of individual experiences, where the study is “inherently shaped by the researcher” (Rogers, 2020). With “the interpretation of data gathered”, it is critical for interpretivist researchers to understand “the context in which any form of research is conducted” (Willis, 2007, cited in Thanh & Thanh, 2015: 25).

Relativist ontology forms the foundation of interpretivism. This assists in understanding that each person holds contrasting world views, where reality differs depending on, for example, experiences, upbringing, circumstances and culture. Accepting differing realities results in increasingly in-depth research (Bezuidenhout, Davis & Du Plooy-Cilliers, 2014). By acknowledging these various and valid realities, a more complex and holistic understanding will develop regarding consumers purchasing breakfast cereal in South Africa. Ultimately, this assists in answering the proposed research questions.

For interpretivist researchers, an interpretivist epistemological view “is an essential source of information for understanding people” (Bezuidenhout et al., 2014: 29). Incorporating this within the study allows for the rise of invaluable individual and subjective interpretations (Kawulich, 2012). There is never a sense of generalisation within epistemology, as what is considered truthful and real depends on individual interpretations (Bezuidenhout et al., 2014). Through this lens, the investigation of individual consumer behaviour relates to the opinions and experiences regarding encounters with NCCs on breakfast cereal FOPLs.

Using an objective manner of reasoning and gathering information within the current study provides for an incomplete, shallow understanding in the context of this study’s purpose. There are no sets of standardised fixed feelings towards the interpretation of NCCs on breakfast cereal FOPLs. In contrast, the current study values subjectivity, acknowledging that all individuals have unique viewpoints and experiences.

3.2. Design/conceptual approach

The current study employed a qualitative approach. Being interconnected with the interpretivist paradigm, qualitative research methods “answer questions about experience, meaning and perspective” from individual standpoints (Hammarberg, Kirkman & de Lacey, 2016: 499; Willis, 2007, cited in Thanh & Thanh, 2015).

As an interpretivist, the researcher used inductive thinking/reasoning, as qualitative research uses this theory-building approach (Dudovskiy, 2018). Additionally, the researcher collected information from participants through one-on-one interviews, transcribed this data and used thematic analysis to formulate a “theory based on the information and [research] analysis” (Creswell, Ebersöhn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen & Plano Clark, 2019: 30). Ultimately, the current study has built on the existing theory of the HHE created by NCCs (Creswell et al., 2019).

The current study also focused on gaining a more profound understanding of the research topic and explored how NCCs impact South African consumers. Thus, the study was exploratory and non-experimental, as it intended to “explore the research questions” instead of searching for final solutions and conclusions (Dudovskiy, 2018; Lobmeier, 2012).

As observational, non-experimental and descriptive, this study used a cross-sectional design. Additionally, it compared pre-existing groups of individuals who were purposively selected as there were specific requirements for eligible participation (Price, Jhangiani, Chiang, Leighton & Cuttler, 2017; Lobmeier 2012). These all fit within a qualitative approach, involving the analysis of “data from a population at one specific point in time” (Cherry, 2019).

3.3. Population

3.3.1. Population parameters

Before defining the target and accessible population of the study, it was essential to set specific population parameters, referring to “the nature (people or social artefacts), unique characteristics and size” of a population (Bezuidenhout et al., 2014: 133). The “nature of the population” focused on whom the researcher approached to answer the

research questions (Bezuidenhout et al., 2014: 133). Within this study, the nature of the population included individuals who share specific characteristics.

The unique and shared characteristics of the population under study included South African participants who regularly purchased and consumed breakfast cereals. Additionally, all participants were selected from three generational groups, namely Generation X (1965–1980), Generation Y/Millennials (1981–1996) and Generation Z/iGen (1997–2012) (Beresford Research, 2019). By analysing the research findings by generational age, the researcher gathered insight into differing generational attitudes regarding NCCs on breakfast cereal packaging and to which degree health halos impacted these generations.

Lastly, the population size included all individual participants who shared all of the unique characteristics explained above.

3.3.2. Target population

The target population involved all individuals who met the population parameters mentioned above. This population included Generation X, Y and Z individuals who resided in South Africa and regularly purchased and consumed breakfast cereal/s.

3.3.3. Accessible population

This accessible population focuses on a smaller refined group of the overall population that can be reached and included within the study (Bezuidenhout et al., 2014). The following points address the requirements for this accessible population:

- This population included individuals that form part of either Generation X, Y or Z, as stipulated in the population parameters.
- Within these three generations, individuals who live in the South African cities of Cape Town, Gqeberha and Durban were accessed. These cities represented a diversified South African population within three different provinces.
- These individuals both regularly purchased and consumed breakfast cereal/s.
- Those who had any form of access to the internet, as the in-depth interviews were conducted via Zoom video calls and required a stable internet connection.

- This population must have either had Facebook, WhatsApp or both as the researcher sent out recruitment information to gather participants on both of these social platforms.
- Must also have had a working email address, as the researcher emailed the interview consent forms to each participant.
- Additionally, this population included individuals who could both understand and communicate in English, as all in-depth video call interviews were in this language.

3.4. Sampling

3.4.1. Sample

The study included a small sample group of three individuals from each mentioned generation. As there were three specified generations within the study, nine participants were used overall.

Qualitative research investigates the “beliefs, attitudes and concepts of normative behaviour” through small-scale data-collection processes (Hammarberg et al., 2016: 499). These sample sizes needed to be small enough that the researcher could conduct in-depth analysis on the collected data to understand several individual cases by closely analysing each detail (Imbrogno, 1994; Sandelowski, 1995). Additionally, Creswell et al. (2019: 221) explain that within homogenous populations, meaning those sharing similar characteristics in terms of the study’s set population parameters, “smaller samples may adequately represent the population”.

3.4.2. Sample method

The current study made use of a non-probability purposive sampling method. This method is used explicitly within qualitative studies when research findings are not “generalised to the larger population” and when researchers need to access a specific subgroup of individuals (Bezuidenhout et al., 2014: 142). Additionally, as this method does not work on random selection, non-probability sampling ensured that each sample element assisted the research. Each of these elements fits within the study’s population parameters (Creswell et al., 2019; Bezuidenhout et al., 2014).

The researcher followed a list of situations that Creswell et al. (2019) explained would constitute for the use of a non-probability sampling method. This list included:

- Due to the nature of the current study (forming part of an honours degree), there was a limit on the financial resources available due to zero external funding.
- There was a tight study time limit as numerous assignments had deadlines during this period.
- The researcher faced difficulty accessing the required population, as most individuals the researcher approached did not purchase and consume breakfast cereals.

The current study aimed to investigate how South African consumers are influenced by the HHE brought about by NCCs on breakfast cereal packaging. Thus, as discussed, the study required specific generational subgroups of South African consumers who, in particular, regularly purchased and consumed breakfast cereals. Additionally, the researcher selected purposive sampling as the study's specific type of non-probability sampling method. Purposive sampling focuses on specifically selecting a sample group chosen based on a collection of characteristics within the set population parameters (Creswell et al., 2019; Bezuidenhout et al., 2014). The current study's sample population could only be gathered through purposive sampling as, within this method, researchers purposively select eligible participants who fit within these specific parameters (Alchemer, 2018).

3.5. Data-collection method

As a qualitative research method, the researcher held in-depth interviews with the three abovementioned generational groups. This qualitative data-collection method deals with “underlying qualities of subjective experiences” and meanings (Bezuidenhout et al., 2014: 173). It aims to gather knowledge of the viewpoints, insights and experiences that each participant has about the topic, thus understanding the phenomenon under study through the eyes of each participant (Bojlén & Lunde, 1995; Bezuidenhout et al., 2014).

As a conversational tool, the primary aim of interviews is to gather information “based on open-ended questions”, allowing for discussions between researcher and participant (Doyle, 2020; Bezuidenhout et al., 2014: 188). Due to its conversational nature, both the participant and researcher asked questions which encouraged two-way communication, allowing the researcher to clarify any point made by providing detailed explanations (Doyle, 2020; Bezuidenhout et al., 2014). Ultimately, this created

a relaxed environment where participants were made to feel more comfortable and less stressed, thus providing more truthful and accurate information (Doyle, 2020). Additionally, conducting interviews provided an “additional source of data” that was used within the data analysis phase, as the researcher was able to collect participants’ “non-verbal reactions” – the expression on their faces and tone of voice when asked a question (Bezuidenhout et al., 2014: 188).

The current study used one-on-one open-ended interviews that involved the compilation of a set list of open-ended questions that the researcher asked all participants. The benefit of using this interview type is that during the data analysis process, the gathered information is more straightforward to analyse as this interview format “allows you to compare notes on the views and opinions of the participants in a more organised manner” (Bezuidenhout et al., 2014: 188).

This interview allowed the researcher to understand each participant’s beliefs and opinions concerning the specific phenomenon under study, learning about different generations’ views and experiences towards NCCs on breakfast cereals (Bezuidenhout et al., 2014).

3.5.1. Application of data-collection method

The following includes a detailed description of how the researcher went about collecting the gathered data:

1. Selection of interview platform

Due to the Covid-19 pandemic and the limited time frame for the data-collection phase, the researcher selected an online video call platform, namely Zoom, to conduct all in-depth interviews.

2. Recruitment

Intending to recruit participants through Facebook and WhatsApp, the researcher designed a digital “interview recruitment flyer” (refer to Figure 1 and Figure 2) sent out to perceived relevant WhatsApp contacts and posted on Facebook. These “flyers” contained all relevant information that potential participants would require to gather information about the interview process.



Figure 1: Digital interview flyer – page 1. Compiled by author.



Figure 2: Digital interview flyer – page 2. Compiled by author.

3. Interview question compilation

While waiting for potential participants to respond, the researcher began compiling the open-ended standardised questions to use within each interview. To ensure that the interview questions aligned with the current study and provided relevant information,

the researcher ensured constant reference to the study's purpose, research questions and objectives.

4. Consent form

As each participant contacted the researcher via WhatsApp, the researcher asked for their email address and then immediately emailed them two consent forms (see Annexure B and C for examples of the consent form and the audio or video recording consent form). The researcher promptly sent out each email, giving participants enough time to read through and sign each form (refer to Figure 3 for an example of this consent form email).

Additionally, once each email had been sent out, the researcher notified each participant that the consent forms had been sent through and asked if they could complete them before interviews could continue.

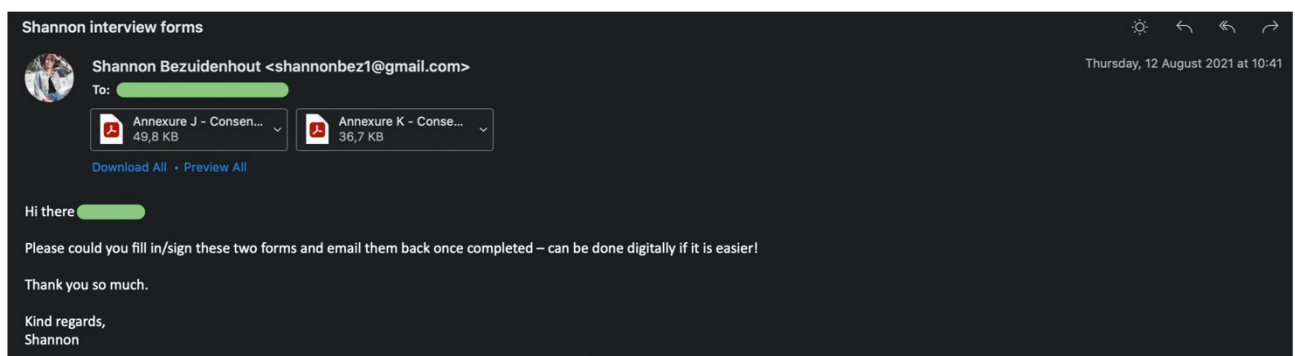


Figure 3: Consent form email.

5. Deciding on interview date/time

Once consent forms were sent out, the researcher and the participant communicated via WhatsApp to organise a day and time that best suited them to have the interview via Zoom. Organising a digital interview was far more accessible than a face-to-face interview as participants were more flexible with their time, knowing that they did not have to drive to a location for a meetup.

6. Participant folder

After finalising the date of each interview, the researcher created a folder on the computer to keep track of all participants and their information. Consent form emails were added to the correct folder and when participants emailed back their signed consent forms, the researcher also added them to this folder.

7. Zoom meeting invite

At the same time as point 6, the researcher scheduled a meeting/interview with the participant on Zoom per the agreed-upon date and time. This scheduled meeting information and the link was sent to the participant via WhatsApp or email, allowing the participant to add this meeting to their calendar so that they would not forget about it.

8. Reminder a day before and on the day

A day before the scheduled interview, the researcher sent the participant a reminder of the meeting. On the interview day, the researcher checked in with the participant to ensure all was in order. In this phase, if the participant had not sent their signed consent forms, the researcher reminded them about this requirement before the interview could commence.

9. Preceding each interview

A few minutes before the meeting, while waiting for the participant, the researcher logged in to Zoom to prepare and settle in. Once both parties had joined the interview, the researcher and participant had a casual check-in conversation, aiming to reduce any tension or anxiety between both individuals.

Before the actual interview began, the researcher reminded the participant of the consent form and double-checked with them if they were still comfortable with a recording (which all participants were).

10. The interview begins

The interview process began when the researcher switched on the video recording. No additional notes were taken, as the researcher aimed to entirely focus on the participant, their reactions and their answers.

The researcher conducted each interview following a set list of open-ended standardised questions that they compiled. Additionally, following pointers explained by Bezuidenhout et al. (2014: 189), the researcher considered the following when compiling the interview questions as well as during the interview:

- The interview “move[ed] from a broad to a narrow focus”, beginning with general questions and moving to more focused “follow-up questions”. Follow-up

questions stemmed from indicated cues within broader questions, done to gather as much information as possible from each participant.

- The researcher refrained from asking “double-barrelled questions”, as this could confuse participants, and instead kept to one question at a time.
- Questions were kept open-ended; questions that “lead the participant to answer in a certain way” were avoided to allow participants to give responses and views that were not “influenced by predetermined cues”.
- Lastly, the researcher allowed participants to elaborate on each of their answers, assisting in obtaining a “deeper understanding of the context” of information that participants were providing.

11. The interview ends

After all planned questions were asked and answered, and a sufficient amount of information was collected, the researcher told the participant that the interview had ended and switched the video recording off.

The researcher thanked the participant for their time and cooperation and asked them what they thought of the interview (done to gather insight on any possible improvements for the remaining interviews). The meeting ended with an informal and friendly chat, after which both individuals said goodbye and the Zoom meeting closed.

12. Zoom video processing

Once each Zoom meeting ended, the program automatically processed the video and downloaded it to the computer within a Zoom meeting folder. After each interview, the researcher took this video and filed it in the correct assigned participant folder.

Apart from maintaining organisation, the participant folders assisted the researcher in keeping track of the number of recruited participants. As mentioned, there was a sample group of three individuals from each of the three generation groups, overall equalling nine participants. After recruiting all nine participants, the researcher removed the digital flyer from Facebook. The researcher also notified any other individuals who made contact that they were no longer needed and thanked them for their willingness to participate.

This was the last phase within the data-collection process, with the first phase of data analysis being the transcription of the recorded interviews.

3.6. Data analysis methods

The data was analysed using the six-phase thematic analysis approach developed by Braun & Clarke (2012). See Figure 4 for these six phases explained and applied within the following section of the application of the data analysis method.

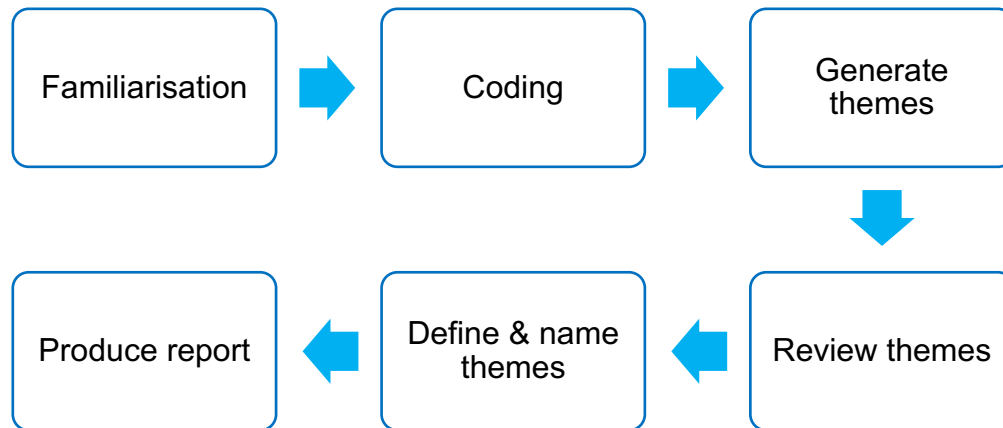


Figure 4: The six-phase thematic analysis approach. Compiled by author. (Based on Braun & Clarke, 2012.)

Thematic analysis suited the current study as this approach discovers “views, opinions, knowledge, [and] experiences”, specifically from qualitative data collection (Caulfield, 2019). The current qualitative study investigated individual consumer behaviour relating to the opinions and experiences regarding encounters with NCCs on FOPLs of breakfast cereals, enabling a further examination of the degree to which the HHE being explored influences individuals.

Thematic analysis also involves a data-reduction coding process. Rather than describing the data set in “rich detail”, this method approaches data sets by analysing, identifying and coding/sorting this data into common identified themes and patterns (Braun & Clarke, 2006: 82; Caulfield, 2019). Ultimately, thematic analysis allows for a “thick, rich and detailed description” when analysing participant viewpoints, generating in-depth understanding and insights of complex topics (Bezuidenhout et al., 2014: 228; Braun & Clarke, 2006; Caulfield, 2019).

3.6.1. Application of data-analysis method

The following includes a detailed description of how the researcher went about analysing the collected data:

1. Zoom video transcription

To transcribe each Zoom interview video, the researcher used Temi, a free transcription software website. The researcher uploaded each interview video to the Temi website and entered their email address for the software to email a transcription link for the video.

Once Temi had sent this email, the researcher could access the transcribed video transcript.

2. Validating the transcript

As this was an automatic transcription, the researcher went through each script multiple times to manually validate the information to ensure accurate transcription.

3. Download transcript

The researcher downloaded this transcript in Microsoft Word format and added it to the correct participant folder.

4. Familiarisation

- First phase in Braun & Clarke's (2012) six-phase thematic analysis approach

The researcher began familiarising themselves with the data once all transcribed transcripts were in their correct participant folders.

This involved printing out all interview transcripts and watching each participant's interview video a few times (an average of four times) while simultaneously rereading the transcribed data. While going through the process, the researcher made handwritten notes on each transcript of early impressions and realisations each time they viewed each participant's interview video (Braun & Clarke, 2012).

5. Coding

- Second phase

After getting familiarised with the transcripts, the researcher coded the data, which involved highlighting sentences/phrases within the interview transcript and developing

short labels (codes) to describe this highlighted content (Caulfield, 2019). For the researcher to keep track of all developed codes, each code was assigned a specific colour. This involved going through each interview transcript while highlighting/colour coding anything that “jump[ed] out as relevant or potentially interesting” (Braun & Clarke, 2012; Caulfield, 2019).

After thoroughly coding the interview transcripts, the researcher collated all coded data into groups. Grouping these codes according to similarities produced a short overview of recurring common meanings and main points within the data (Caulfield, 2019). The researcher wrote these main points and recurring meanings on sticky notes to keep track of their thought process.

6. Generate themes

○ Third phase

The researcher then shifted these codes into themes. Firstly, theme generation involved the identification of common patterns among all transcripts. The researcher then captured essential points within this data that both represented patterned responses within the set of collected data and related to the current study’s research questions (Braun & Clarke, 2012).

This generation took place on Microsoft Excel, where all identified patterns/codes from each transcript entered in Excel were placed in one column. After entering all codes into the spreadsheet, the researcher began grouping these into common themes, producing overall themes for each code collection that told the researcher “something helpful about the data for [the current study’s] purpose[s]” (Caulfield, 2019).

Additionally, the researcher discarded all vague and irrelevant codes that did not fit into the current study.

7. Review themes

○ Fourth phase

The researcher then abstracted and logically synthesised these themes, reviewing them “in relation to the coded data and entire dataset” (Braun & Clarke, 2012: 63; Caulfield, 2019). This acted as a quality check, ensuring that all themes were functional and accurately represented the data. When encountering problems with some themes, the researcher either combined them, discarded them or split them up,

intending to make these themes “more useful and accurate” (Braun & Clarke, 2012; Caulfield, 2019).

This phase involved the researcher referring between the themes on the Microsoft Excel spreadsheet, the interview transcripts and the current study’s objectives, purpose and research questions.

8. Define and name themes

- Fifth phase

The researcher began by typing up each theme on a Microsoft Word document. They then summarised the essence of each theme within a few sentences, making sense of each and clearly stating what was specific and unique about each and how each theme would assist in the understanding of the data (Braun & Clarke, 2012; Caulfield, 2019).

After summarising the themes in a few sentences, the researcher developed “succinct and easily understandable name[s]” for each theme and recorded these on the Microsoft Word document (Caulfield, 2019).

9. Produce report

- Sixth phase

The final phase of the six-phase thematic analysis approach involved compiling the data analysis. The researcher produced this final report which provided a compelling and complex analysis that answered the research questions and addressed the objectives and research purpose.

The result/findings section addressed both the proposed and found themes, describing how often they “[came] up and what they [meant]” (Caulfield, 2019). The researcher presented and logically linked themes to build a coherent and meaningful “story of data” (Braun & Clarke, 2012: 69). The report’s conclusion explained the research’s primary takeaways, showing how the data analysis answered the current study’s research questions and objectives (Caulfield, 2019). Additionally, the conclusion also included suggestions by the researcher to further the current study findings.

3.7. Trustworthiness

Trustworthiness is the most crucial key measure within qualitative research, being the “acid test for data analysis, findings and conclusions” (Creswell et al., 2019: 143). To establish trustworthiness, data must as accurately as possible reflect what has been described by research participants, as aspects that could threaten research trustworthiness focus on biases and sensitivity of participants and the researcher (Lincoln & Guba, 1985). The researcher mitigated trustworthiness threats by employing multiple strategies that assisted in analysing the research as authentically as possible (Padgett, 1998, cited in Lietz, Langer & Furman, 2006: 444).

Within the current study, the researcher ensured trustworthiness by employing the four criteria proposed by Guba (1981), being *credibility*, *transferability*, *dependability* and *confirmability*.

Credibility

Credibility refers to how similar the research findings are to reality, meaning how accurately the researcher interprets participant data (Bezuidenhout et al., 2014).

The first two aspects that enhanced the current study’s credibility included the researcher spending substantial time with participants and gaining early familiarity with them – done to understand these individuals better and gather “insight into their lives” (Creswell et al., 2019; Bezuidenhout et al., 2014: 258). However, due to the current study’s limited time frame, the researcher hastily initiated participant recruitment to gather enough information about each participant while providing important information concerning the study and the data collection process.

The second credibility enhancer, explained by Creswell et al. (2019) and Bezuidenhout et al. (2014), includes the use of triangulation, which means that there is more than one method of data collection employed within the study (Creswell et al., 2019; Bezuidenhout et al., 2014). However, because of the current study’s tight time limit, one-on-one interviews were the only data-collection method used. Using more than one research method may have led to inaccurate and incomplete data collection and analysis, as the researcher rushed the process.

The third measure explains that credibility increases when participants believe the study’s research findings (Bezuidenhout et al., 2014). Research that lacks in-depth

participant insight and possesses incomplete data leads to inaccurate research findings, consequently being unable to provide evidence to the claims made within (Bezuidenhout et al., 2014).

Additionally, Creswell et al. (2019) explain that frequent information sessions between researcher and superiors ensure credibility. This assists in an iterative refinement process that ultimately leads to a well-established research design, research methods and theoretical underpinning that align with the research questions (Creswell et al., 2019).

Transferability

Transferability allows readers to make connections between study elements and “their own experiences or research”; in other words, can the research be transferred to the readers’ context to deliver similar results (Creswell et al., 2019: 144; Bezuidenhout et al., 2014).

The first implemented transferability strategy involved purposefully sampling participants through a non-probability purposive sampling method. Creswell et al. (2019) explain that this ensure participants most accurately represent the target population within the current study’s context.

As mentioned within credibility, frequent contact between the researcher and their superiors assists in the research paper’s refinement, linking to the insurance of transferability as the research involves “thick description”. This included incorporating purposeful and rich accounts of the research context, design and participants for readers to make individual transferability decisions (Creswell et al., 2019: 144).

Dependability

Credibility ensures dependability as there is a close connection between these two criteria (Lincoln & Guba, 1985, cited in Creswell et al., 2019). Creswell et al. (2019: 145) explain that a study demonstrates dependability through its reflective evaluation; the “operational detail of data-gathering” and “through the research design and its implementation”.

To ensure dependability within the current study, the researcher employed two strategies. Creswell et al. (2019) state that the researcher should document the analysis process for readers to follow the decision-making process throughout the

study. Thus, the researcher documented all created category labels, category revisions and observations on the collected data. Additionally, to assist readers in following the researcher's reasoning, the research decision process, specifically during data collection, processing and analysis were documented (Creswell et al., 2019).

Confirmability

Bezuidenhout et al. (2014) explain that the criteria of confirmability include how successfully the researcher translates the collected data into research findings and how successfully they interpret these findings. This criteria also focuses on the degree to which research findings are shaped by participants rather than by the researcher's "bias, motivation or interest" (Creswell et al., 2019: 145).

To increase confirmability within the study, the researcher aimed to reduce bias. As mentioned, one-on-one interviews were the only method of data collection, resulting in the reduction of confirmability as the researcher employed the triangulation strategy to increase overall trustworthiness (Creswell et al., 2019). However, Creswell et al. (2019) highlighted more significant risks of bias, namely when researchers become increasingly more involved with their participants, driven to only see what they wish to see. Therefore, the researcher deduces that this lack of triangulation is positive. Having limited time with and exposure to participants during the interview sessions decreased the potential of researcher bias (Creswell et al., 2019).

4. FINDINGS AND INTERPRETATION

4.1. Presentation of findings

4.1.1. Proposed themes

Primary themes	
1	“Health Halo Effect” (HHE)
2	Nutrient content claims (NCCs)
3	Front of packaging labels (FOPLs)
Secondary themes	
4	South African consumer interpretation of food labels
5	Front of packaging label content claim layout and formatting

Table 1: Proposed themes. Compiled by author.

4.1.2. Found Themes

Theme		Concept	Explanation
1	I don't know	Lack of knowledge	Participants lack knowledge when it comes to having the ability to correctly read/interpret nutritional information within the nutritional contents table on breakfast cereal packaging.
2	Under the influence	Influenced by NCCs	NCCs influence consumer decisions when purchasing breakfast cereal.
3	My eyes are open	Awareness	Participants are aware of: • The potentially inaccurate/deceiving nature of NCCs. • The overall unhealthy aspects of cereal. • That NCCs may impact their decisions.
4	I assume so	Assumptions	Participants tend to assume cereal healthfulness.

5	It's not about my age	Age is not a factor	It is more about the access to information instead of the participants' current age when interpreting NCCs.
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Table 2: Found themes. Compiled by author.

4.2. Interpretation of findings

Question		Finding
1	What type of cereals do you generally buy?	Warm-up question.
2	Why do you buy these cereals?	Seven of nine participants purchase the cereal they usually eat because they want something healthier than other cereals.
3	Why do you buy and consume breakfast cereal?	All participants stated that they eat cereal because it is quicker and/or easier than making a full breakfast.
4	What is most important to you when buying breakfast cereal?	Six of nine participants said that health aspects are most important, whereas four of nine said that price is also essential.
5	What do you think attracts you to breakfast cereal packaging?	Seven of nine participants stated that the overall packaging design is most important to them.
6	What attracts you to the cereals that you buy?	Merged with Q2.
7	Do you read the front labels or the back labels on breakfast cereal packaging?	Three participants said they read the back labels and another three said they read both the front and the back. Only two said that they only read the front.
8	If you do, why do you read these labels?	Merged these answers with the other questions.

9	What claims attract you to the cereal that you buy?	Five of nine participants said that sugar-related claims attract them the most – e.g. no, reduced or low sugar.
10	Do you feel that you can make a good decision when based on reading the nutritional table?	Most participants stated that they are unsure how to read this information or are not fully confident interpreting it.
	*Concept – If participants feel that they are getting enough information from the nutritional table to make an informed decision.	
11	Do you consider yourself to be influenced by nutrient content claims on breakfast cereal packaging?	Seven of nine participants said they are influenced by these nutrient claims, with only one stating that they are not.
	*Concept – Participant awareness around being impacted by NCCs.	

Table 3: Interpretation of findings. Compiled by author.

4.3. Findings in context of themes

4.3.1. *I don't know*

“I don't know” addresses the lack of knowledge concept, highlighting that most participants lacked knowledge when it came to having the ability to correctly read and interpret nutritional information presented within the nutritional contents table on breakfast cereal packaging.

When the researcher asked participants if they feel that they can make good decisions based on reading breakfast cereal nutritional tables, primary findings included:

- *“Not really, no. I don't really know how to read them.”*
- *“I don't know where to get more information from.”*
- *“[I am] not fully confident in this.”*
- *“[Cannot] make an informed decision.”*

The proposed primary themes (HHE, NCCs and FOPLs) and secondary themes (South African consumer interpretation of food labels) come into focus when unpacking the above findings within this found theme. With a notably expressed lack

of knowledge surrounding the inability to interpret nutritional tables successfully, participants may place greater reliance on NCCs found on FOPLs of cereal packaging. Due to this, an HHE could develop as participants tend to substitute nutritional information (that they may not fully understand) with preconceived, misinformed understanding. Consequently, these claims could alter the way participants interpret these labels, leading to possible biased perceptions and inaccurate inferences about a products overall healthfulness (Sütterlin & Siegrist, 2015; Yudkowsky, 2007).

“I don’t read the information” comes as an additional finding, where two participants (interestingly both male) stated that they do not read the nutritional content table information on cereal packaging. This finding caused the researcher to question whether these participants simply do not care to read this type of information or did not think about it before answering the interview question iterated above. This led to a recommendation to further this finding with a three-tier gender-based (female, male and other) study. The researcher also suggests that this recommended study have a larger sample than the current, as increasing the study size may result in a larger collection of participants saying the same thing.

Not evident within previously reviewed studies, the researcher conceptualised this found theme from the collected research findings. “I don’t know” successfully addressed the researcher’s intended findings, being that most participants lacked the knowledge and ability to interpret cereal’s nutritional content table information correctly. When this theme, along with the other three found themes of “under the influence”, “I assume so” and “My eyes are open”, stand alone, they do not answer a research question/objective. However, when combined, they formulate a holistic answer to the research objective of investigating which factors contribute to the influence of the HHE on South African consumers brought about by NCCs on breakfast cereal packaging.

4.3.2. Under the influence

“Under the influence” addresses the finding that seven of nine participants said they would consider themselves influenced by NCCs on breakfast cereal packaging. Some key findings surrounding this interview question include:

- *“As a victim of Kellogg’s Special K, I would say that I definitely am.”*
- *“A hundred percent. I know that’s not a good consumer behaviour.”*

- *“I am attracted to the labels in the front, yes. Leads me to considering buying it.”*

After finding that most participants consider themselves influenced by NCCs, the researcher went on to ask participants what the most important aspect is when buying breakfast cereal. Six participants said that healthfulness aspects are the most attractive, looking for healthier cereal options. In addition, the degree to which NCCs on cereal packaging influenced participants heightened when these claims addressed healthfulness.

- To the question, one participant answered: *“[A]ll the vitamins and minerals and everything that they tell you is on the packet.”*
- After answering the question, another participant explained that they eat Kellogg’s All-Bran *“because, for me, that’s a healthier option than Corn Flakes.”* When asked to elaborate, they responded with, *“it has a fibre look. The packaging has a picture of the product [All Bran] on its front, so I can see what it looks like. Also, brown [All Bran] looks healthier than yellow [Corn Flakes].”*

These findings coincide with Agarwal and Roy’s (2020) study, which found that nutrition labels significantly impact consumer purchase behaviour and attitudes. Overall, there is an importance that participants place on breakfast cereal healthfulness aspects. Thus, being influenced by health claims and images that develop holistic healthfulness views on products that may not be as healthy as perceived, linking to the HHE in which consumers infer an overgeneralised perception about the product’s overall healthfulness (Burton et al., 2014; Chandon, 2012; Fernan et al., 2018; Ikonen et al., 2019).

To gain a deeper understanding of these healthfulness aspects, the researcher asked participants which claims attracted them to the cereals they purchase. Findings suggested that sugar-related claims (no, reduced and/or low sugar) tended to attract the highest level of interest among the majority of participants. This is supported by Gracia and Barreiro-Hurlé’s (2019) study results which showed that participants preferred NCCs highlighting reduced unhealthy substances, whereas for most participants, sugar-related NCCs such as reduced/no added sugar were most important. This research finding directly addresses the secondary objective of

determining the type of nutrient claim/s on breakfast cereal packaging that South African consumers are most attracted to.

Even though this finding successfully addresses the secondary objective, it cannot be generalised due to the current study's small sample size. The researcher proposes that this study be furthered as a mixed-method study with a larger sample size. Additionally, suggesting exploration surrounding the types of claims that consumers are most attracted to on other food-related products (i.e. health bars), as well as why they are most attracted to these specific claims.

The proposed themes of the HHE, NCCs, consumer interpretation of food labels and the front of packaging label content claim layout and formatting are brought into focus within the above findings of this found theme. There is an evident dependence on and attraction to both cereal packaging design and NCCs, influencing consumer purchase decisions as they assume that the entire product is healthier due to FOPL NCCs, such as "added vitamins and minerals" or "reduced sugar".

In addition to these findings, which addressed whether participants would consider themselves to be influenced by the discussed cereal NCCs, one statement that stood out was:

- *"It depends on the manufacturer."*

As this was an unexpected yet isolated finding, the researcher proposes a further qualitative study with a larger sample to determine which cereal brands/manufacturers are trusted and which are distrusted by participants. In addition, there is a suggestion to delve deeper into this potential study to understand why certain individuals possess a level of distrust towards these manufacturers.

Within the interpreted findings, the researcher found a level of distrust that participants have towards cereal manufacturers. This arose as an unexpected insight within two of the found themes, bringing the researcher to recommend an additional study be done to understand why participants tend to distrust these manufacturing brands.

4.3.3. I assume so

"I assume so" addresses the finding that participants tended to assume the healthfulness of certain cereals without sufficient information. This found theme does

not directly relate to the findings of a specific interview question', but instead is cross-pollinated by a collection of various findings.

Findings collected from different interviews that corroborate this found theme include:

- A participant said that they ate *"Kellogg's Special K because it was 'healthier'"* (said with inverted commas), and when asked why they assumed this, they immediately answered: *"The marketing. It's all about the slim thing, their whole marketing campaign was based on it's healthier and slim and lose belly fat."*
- After being asked if they know if the sugar content in Futurelife is low or high, one participant said, *"I make a lot of assumptions about the amount of sugar in things. So I'm not eating Coco Pops because I think that probably has a lot of sugar in it, but I actually haven't checked Futurelife."*
- Another participant said they were trying *"to eat more breakfast cereal that has less sugar in it"*. When the researcher went on to ask them what cereal that they bought because of this reason, the participant answered: *"The Woolies Berry one [a type of Woolworths muesli], on the side of the package, I don't know how true it is. And my boyfriend's told me that I believe it too much, but there's quite a big thing where it says like it only has two and a half teaspoons of sugar in it. So that was something I went for."*

From this prior statement/finding, it is deduced that these types of sugar claims may cause an overall assumed healthfulness. These claims may be causing participants to ignore the product nutritional content table that may be presenting information that proves the cereal is not as healthy as these NCCs claim it to be. Additionally, linked to the found theme of "I don't know", this nutritional table may also be ignored due to participants lacking knowledge and not fully understanding how to interpret this information.

These findings are corroborated by a study by Fernan et al. (2018) that explained how NCCs increased the product's perceived nutritional level (causing consumers to assume that the product has a higher nutrient level). These claims also increased perceptions of additional "healthy" nutrients that were not claimed on the packaging.

The proposed themes of the HHE, FOPLs, NCCs and consumer interpretation of food labels is brought into focus within the above findings of this found theme. This found

theme addresses the HHE created by NCCs on FOPLs, creating inaccurate interpretations and thus leading to assumptions of overall healthfulness based on a singular content claim (Ikonen et al., 2019). Thus, it links to both the prior theme (under the influence) and meets the primary research objective of investigating factors that are instrumental in the influence of the HHE created by NCCs on cereal packaging.

The researcher suggests an additional study with a larger sample be done to explore if this assumption towards the healthfulness of cereal, based on the interpretation of NCCs, is shared across a larger spread of participants. Additionally, the researcher proposed that this study be done to understand why these participants may be making these specific assumptions; be it that they do not know how to interpret nutritional information (lack knowledge) and make assumptions as an escape mechanism, do not care to read the nutritional table, or for other unexplored reasons.

4.3.4. My eyes are open

“My eyes are open” addresses the concept of awareness, highlighting the finding that most participants displayed a certain level of awareness towards the unhealthy aspects of cereal and the potential deception of FOPLs NCCs.

Findings that corroborate this level of awareness include:

- *“Unfortunately, most cereals have got a lot of sugar.”*
- When discussing the claims that they are most attracted to, a participant stated: *“I’m really distrustful of any cereal that tries to be like super healthy. I actually think that most breakfast cereals are lying to me.”*
- After the researcher asked why the participant bought the cereals they always consume, the answer included that they *“just buy them because they are the better of all the evils.”*

Within the interview process, an additional unexpected finding emerged. The researcher found that due to this awareness, there is a level of distrust towards cereal manufacturers, where one participant explained:

- *“[S]ometimes it feels a bit sketchy because I feel like they [manufacturers] leave out a lot of information on the packaging. I read the back is because I feel that*

those, those slogans [NCCs] are just to attract you to buy them but aren't necessarily true."

Linking to the above, after being asked if they read the nutritional contents table, another participant responded:

- *"It depends on the manufacturer. Like, you know, Nature's Choice, what they put on the front of the label, you're going to get that. Where, like a Kellogg's product, you're going to still turn it around to read the label."*

This distrust could also be a reason why participants direct their attention to the nutritional contents table, being corroborated by a participant saying:

- *"They [the manufacturers] say low carb, but if I take two or three products from the shelf, then that low carb one [product] is actually higher [in carbs] than the next product that didn't stipulate low carb on the front. So, I don't just trust, I read [the back]."*

The above findings highlight that participants possessed particular awareness towards the unhealthy aspects of cereal and the potentially deceptive nature of manufacturers. Due to this awareness and distrust, the focus is placed on nutritional information located on the back of cereal packaging (even though most participants lack the knowledge to interpret this information) to make a more "accurate" purchasing decision based on stated health attributes. This coincides with the study by Kempen et al. (2011) which found that consumers read labels to assess food's health attributes, nutritional value and personal benefits.

As an additional thought surrounding cereal manufacturers, the researcher recommends a further study to understand why individuals distrust these manufacturing brands. The researcher also suggests that this recommended study include a larger sample to collect more accurate findings that can also be generalised to the larger consumer market.

Lastly, it was found that participants were aware that their cereal purchase decisions could be or were impacted by NCCs. After explaining that they eat granola for breakfast because they were trying to be more health-conscious, a participant confessed that:

- “[E]ven granola, you can almost say they do also have a halo effect because you think there’s a lot of peanuts and you know, stuff like that in there that is healthier, but it’s all sugar-coated.”

To add, another participant explained:

- “I know a lot of stuff if it’s gluten-free [for example], it’s not healthy, but it just means it doesn’t have gluten in it. You’d automatically kind of think it’s healthy because it doesn’t have that in, but then it would still have very high sugar and refined carbs in it.”

These statements focus on a potential HHE caused by certain NCCs (such as “gluten-free”) whereby the assumption of overall healthfulness is based on a singular claim (Ikonen et al., 2019).

Summarising from above, all five proposed themes have emerged within these findings. While linking to the prior theme, “my eyes are open” also addresses the first and third research objectives. Even though most participants may lack knowledge on how to interpret nutritional information, they possess a level of awareness towards the potential deception of some breakfast cereal NCCs.

4.3.5. *It’s not about my age*

“It’s not about my age” was derived from a quote, “*It’s not about the age of the consumer. It’s about the time.*” During their last interview, the researcher stated this conclusion while discussing how different generational groups may interpret NCCs and other information on breakfast cereal packaging.

Interviewing participants who belonged to the generational groups of X, Y and Z, the researcher asked participants (at the end of each interview) for their opinion on how they thought these different age groups might interpret NCCs on cereal packaging. As the formulation of this answer involved an analysis of all information collected within each interview, participants only gave an opinions as there was no definite, single answer. This question draws a direct link to the current study’s third objective and brings the proposed themes of NCCs and South African consumer interpretation of food labels into focus.

It was found that there was no noticeable difference in the interpretation of nutritional labels and NCCs on cereal packaging, as there was no correlation between the age

of participants versus how they answered the interview questions. The researcher and last participant (from Generation X) concluded that the concept of age was not a factor in how different generational groups interpreted NCCs and nutritional information on breakfast cereal packaging.

As time has progressed, along with technology and the internet, our viewpoints have changed. Findings that corroborate this include:

- *“We [have] evolved with the time.”*
- *“[B]ecause time has progressed, everyone is adapting to the times. It’s not necessarily generations acting differently.”*

Additionally, the participant formulated the following insightful conclusive statements that led to answering the final research question/objective:

- *“[M]aybe years ago when we didn’t have all the technology and to actually see what’s out there and how to improve your health [different age groups may have interpreted cereal packaging labels differently].”*
- *“I think there’s quite a significant number of us [who maybe have interpreted these claims differently in the past] that’s now started leading a healthier life and being more aware of what we put in our bodies.”*
- *“I think there’s more people these days, my age and older, you know, that’s more aware of what’s going on around us, being exposed to the internet to live a healthier life because it’s all out there for us to see and experience.”*

“It’s not about my age” as an entire theme was unexpected, possibly due to age groups not being an evident factor within previously reviewed studies; thus, the researcher had no frame of reference to previous findings. It can be mentioned that the study conducted by Kempen et al. (2011) included different age groups within the study’s population parameters. However, with further analysis of this prior study, the researcher found no evidence of age groups impacting the study’s findings. In other words, age groups did not play a primary role, thus not leading to findings based on age.

The researcher suggests a future mixed-method study surrounding a larger sample of the mentioned generational groups be done. The aim is to expand the study’s reach to determine whether findings from this larger study can confirm or deny the found

theme's current findings. Additionally, it is also proposed that a study be conducted on how participants from various SEM (socioeconomic measure) levels may interpret NCCs on breakfast cereal packaging. Rerouting the studying towards income levels may be more successful in information gathering and may lead to a collection of interesting findings.

5. CONCLUSION

5.1. Research question, problem, objectives

With the assistance of all proposed and found themes, the researcher successfully answered all three research questions and their corresponding objectives. By answering these questions and objectives, the current study's research problem has also been addressed.

As a summary of the research findings:

1. Primary research question

What factors contribute to the influence of the “Health Halo Effect” on South African consumers brought about by nutrient content claims on breakfast cereal packaging?

○ **Corresponding objective**

To investigate the factors contributing to the influence of the “Health Halo Effect” on South African consumers brought about by nutrient content claims on breakfast cereal packaging.

The aim was to investigate the factors contributing to the influence of the HHE on South African consumers brought about by NCCs on breakfast cereal packaging. From the findings and their interpretations, the researcher found that the three themes of; “I don’t know”, “Under the influence” and “I assume so” address insights that point to factors contributing to the influence of the HHE – ultimately answering and addressing the primary question and objective.

The first found theme, “I don’t know”, addressed the finding that participants lacked the ability to correctly read and interpret nutritional information within the nutritional contents table on breakfast cereal packaging. Due to this, participants tended to place greater reliance on FOPL NCCs. This reliance increased the potential development of an HHE as there was a tendency to substitute presented nutrient information (that participants may not have fully understood) with preconceived, misinformed understanding.

The “under the influence” theme consolidated the first theme above, addressing the finding that NCCs do indeed influence participants. Corroborating this, an additional

finding within this theme provided the insight that aspects of healthfulness are the most essential and attractive when purchasing breakfast cereals. Ultimately, the nutrient claims claiming healthfulness aspects heightened the degree of NCC influence within participants. This links to the HHE in which individuals possibly infer an overgeneralised perception about a product's overall healthfulness based on singular claims (Burton et al., 2014; Chandon, 2012; Fernan et al., 2018; Ikonen et al., 2019).

Lastly, "I assume so" discussed the finding that participants tended to make assumptions towards cereal healthfulness without sufficient information. Specific claims lead participants to assume an overall product healthfulness. These assumptions may cause them to ignore nutritional content tables (that may present information proving that the particular cereal is not as healthy as these NCCs claim it to be) and assume overall product healthfulness. Ultimately, this may result in biased perceptions and inaccurate inferences about a product's overall healthfulness, leading to the HHE (Sütterlin & Siegrist, 2015; Yudkowsky, 2007).

These three themes address factors contributing to the influence of the HHE, answering the primary research question and objective. In summary, these factors involve; the lack of knowledge when interpreting and reading nutritional content information, NCCs influence consumer decisions when purchasing breakfast cereal and assumptions about cereal healthfulness are made without sufficient information.

The researcher has integrated the "my eyes are open" theme into the above research question answer as an additional insight. This theme addresses the finding that, even though there is an HHE influence, participants possessed a certain level of awareness towards the unhealthy aspects of cereal and the potential deception of FOPLs NCCs. Ultimately, this level of awareness may minimise the influence of the HHE on participants.

It is worth mentioning that this finding speaks to the current study's rational and heuristic value (discussed at the end of this paper). The researcher aims to raise awareness around how consumers are being influenced, misled and deceived through the HHE and to grow consumer knowledge in the interpretation of cereal nutritional information. The insight developed from the "my eyes are open" theme may assist in proving that growing knowledge and increasing this awareness could assist in mitigating the impact of the HHE on consumers.

2. Secondary research question

To what type of nutrient claim/s on breakfast cereal packaging are South African consumers most attracted?

○ Corresponding objective

To determine the type of nutrient claim/s on breakfast cereal packaging that South African consumers are most attracted to.

Within the “under the influence” theme, participants were most attracted to cereal packaging sugar-related NCCs (such as no, reduced or low sugar).

3. Secondary research question

How do different generational consumer groups interpret nutrient content claims on breakfast cereal packaging?

○ Corresponding objective

To investigate how different generational consumer groups interpret nutrient content claims on breakfast cereal packaging.

Within the “it’s not about my age” theme, the researcher found that participants belonging to Generation X, Y and Z did not interpret NCCs differently. However, rather than the participant age, it was found that the progression of time and the development of technology has caused participant views and perspectives towards healthfulness, NCCs and the interpretation of nutritional labelling to evolve.

5.2. Recommend further study

Within the discussion findings in context of the found themes, the researcher recommended five future studies to further the current research topic.

A consistent element within all recommended future studies saw the researcher suggest that a larger sample size be involved. This is because a larger sample is more “representative of the population” and broadens the collection of potential findings, forming “a better picture for analysis” (DePaulo, 2000, cited in Unite For Sight, 2016; Patel, Doku & Tennakoon, 2003, cited in Unite For Sight, 2016).

The researcher iterates the proposed future studies below:

- ***Future study 1: Gender-based***

In a study conducted by Arganini, Saba, Virgili, Comitato and Turrini (2012), it was found that female participants generally tended “to perform healthier food choices and are much more concerned about the importance of food choice and eating behaviour”. When the researcher asked participants if they feel that they can make good decisions based on reading breakfast cereal nutritional tables, two participants (both male) were the only individuals to answer, saying: “*I don’t read the information.*” These two findings show there is a possibility that different genders have differing views when it comes to health and nutrition.

Due to this, the researcher proposes that a three-tier gender-based (female, male and other) study be done to explore the relationship between gender, the HHE, NCCs and interpretations of nutritional information.

- ***Future study 2: Certain levels of awareness***

Within the findings, the researcher found that most participants possessed a certain level of awareness towards the unhealthy aspects of cereal and the potential deception of FOPL NCCs.

The researcher proposes that a future study be done to determine consumers’ actual level of awareness surrounding these discussed aspects. Findings could further assist in the understanding of just how much influence the HHE has on consumers. To add, the researcher suggests this study involves a mixed-method approach as it can be done on a larger scale and assists in the collection of “rich, comprehensive data” (Wisdom & Creswell, 2013: 3).

- ***Future study 3: Most attractive nutrient claims and why***

This specific future study aims to delve deeper into the research findings that address the secondary research question and objective of the type of nutrient claim/s on cereal packaging South African consumers are most attracted to.

The researcher suggests that this study again explores the most attractive nutrient claim/s on other food products (i.e. health bars). Additionally, it is recommended that focus be placed on why consumers are most attracted to these specific claims. This could lead to insights surrounding how these claims influence consumer decisions at

point of purchase. As an iteration of the above, the researcher suggests that this study be furthered as a mixed-method study.

- ***Future study 4: Why there is distrust in cereal manufacturers***

Within the interpreted findings, the researcher found a level of distrust that consumers have towards cereal manufacturers. This arose as an unexpected insight within two of the found themes, bringing the researcher to recommend an additional study be done to understand why certain individuals possess a level of distrust towards these manufacturers.

The researcher also suggested that a further qualitative study (with a larger sample) be conducted to determine which cereal brands/manufacturers participants trust and distrust.

- ***Future study 5: Generational group and income level***

Lastly, focusing on answering the last secondary question and objective, the researcher found that age played no contributing role in interpreting NCCs differently. From this, the researcher proposed that a further mixed-method study be conducted to collect comprehensive and rich data from a larger, substantially larger sample group than the current study included (Wisdom & Creswell, 2013). This larger sample will allow potential findings to be more “representative of the population” (DePaulo, 2000, cited in Unite For Sight, 2016).

Additionally, the researcher proposed that this study be done with participants from various SEM (socioeconomic measure) levels, with the aim being to determine if varying income levels may lead individuals to interpret and be influenced by NCCs on cereal packaging differently from each other.

5.3. Ethical considerations, limitations and heuristic value

5.3.1. Ethical considerations

As the current qualitative study focused on human individuals in the data-collection process, specific ethical considerations were considered. Before data collection began, the researcher ensured:

Informed consent, permission and voluntary participation

- i. Ethical clearance and institutional permission were granted via a provisional consent form that the researcher submitted to the IIE.
- ii. “[A]ll relevant information and any possible risks of participation” were disclosed to each participant, including, for example, research goals, nature of the study and their right to withdraw (Creswell et al., 2019; Vanclay, Baines & Taylor, 2013: 246). After this briefing, the researcher recorded the informed consent of each individual via consent forms.
- iii. Permission was granted by each participant, in the form of an audio recording consent form, for the researcher to video record each interview (Vanclay et al., 2013).

Protection from harm

- iv. All participants were protected from harm (emotional and psychological distress) during the research process. Refraining from sensitive questions could have risen during interviews (Vanclay et al., 2013).

Anonymity and confidentiality

- v. Participants’ privacy was honoured by ensuring anonymity and confidentiality (Creswell et al., 2019). The researcher honoured this privacy by refraining from disclosing any identifiable participant information and removing all participant names when compiling and interpreting the research findings (Creswell et al., 2019; Vanclay et al., 2013).

5.3.2. Limitations and delimitations

Limitations

Limitations focus on “influences that the researcher cannot control”, limiting the study and influencing research results (St. Cloud State University, 2017). Limitations realised within the current study included:

- ***Socially desirable responding (SDR) in interviews***

Socially desirable responding describes the inclination that human beings have to favourably present themselves, responding to situations “according to how they think

people in their immediate environment would like them to react”, in an attempt to avoid judgement or to conform to societal norms (He, Van de Vijver, Dominguez Espinosa, Abubakar, Dimitrova, Adams, Aydinli, Atitsogbe, Alonso-Arbiol, Bobowik, Fischer, Jordanov, Mastrotheodoros, Neto, Ponizovsky, Reb, Sim, Sovet, Stefenel, Suryani & Tairband Villieux, 2015: 228). This possibly caused participants to provide inaccurate responses to questions during interviews, impacting the data's validity and thus leading to skewed results (Huang, Liao & Chang, 1998, cited in Van de Mortel, 2008: 41).

One-on-one interviews rely on the “conversational interaction between” the researcher and their participant, relying on participants to self-report their knowledge, understandings, perceptions and “experiences of a given phenomenon” (Binns, 2014; Ryan, Coughlan & Cronin, 2009: 313). Tooze, Sabar, Thompson, Troiano, Schatzkin and Kipnis (2004) explain that socially desirable responding has been found to occur in various socially sensitive topics, including those concerning dietary intake. Participant socially desirable responding may have occurred within the current study that focused on how NCCs impact individuals, ultimately focusing on nutritional dietary knowledge/awareness.

The researcher prevented/mitigated and socially desirable responding risks by having a casual check-in conversation with participants a few minutes before each interview session began. This was intended to relax participants, reducing tension by making them feel comfortable in a space that they felt was judgement-free (Gregson, Zhuwau, Ndlovu & Nyamukapa, 2002).

- ***Gender of participants***

In compiling the current study's population, the researcher set no limitations on the target participant's gender. This resulted in the study involving seven females and two males within the overall sample of nine participants.

Within some findings, particularly within the “I don't know” theme, the researcher found that the two male participants stated that they did not read the nutritional content table information on cereal packaging. Arganini et al. (2012) found that women are generally more concerned about healthier food choices. The researcher deduced that the current study's research results were possibly skewed because most participants were female (as this gender has a “tendency to perform healthier food choices”) (Arganini

et al., 2012: 95); ultimately concluding that the current study's findings cannot be generalised to a broader population.

This limitation had no mitigation strategies as it was only realised after research findings had been interpreted. However, as a suggestion for future mitigation, the researcher suggests that gender be set within the population parameters to ensure an equal balance between males and females when data collection is being conducted.

- ***Time constraints***

Time constraints are typical within research, ensuring researchers stay on track through the entire process. Researchers need sufficient time to source and contact participants, to “collect the data from them and then still analyse and write up [research] findings” (Bezuidenhout et al., 2014: 145). These constraints are a threat to any study.

Ultimately the researcher set a smaller sample size to ensure that the current study did not become “too time-consuming”, resulting in a rushed process (Bezuidenhout et al., 2014: 145).

Delimitations

Delimitations focus on boundaries and limitations consciously set by the researcher (St. Cloud State University, 2017; Theofanidis & Fountouki, 2019). Delimitations realised within the current study included:

- ***Small sample size***

Due to the time constraints mentioned in the limitations above, the current study's sample size was limited to a small collection of nine participants. Data saturation is reached when “further coding is no longer feasible” and necessary (Fusch & Ness, 2015: 1408). The current study's small sample size led to concerns surrounding saturation as “[f]ailure to reach data saturation” hinder content validity and may impact the research quality (Bowen, 2008, cited in Fusch & Ness, 2015: 1408).

However, sample size sufficiency is measured by data depth rather than frequency (Morse, Barrett, Mayan, Olson & Spiers, 2002). Therefore, interpreting less raw data/findings allowed the researcher to formulate extensive in-depth findings and interpretations.

- ***Conceptual approach/design***

The current study's exploratory approach "generate[ed] qualitative information" (Dudovskiy, 2018). Dudovskiy (2018) explains that within this approach, a level of bias arises when interpreting qualitative participant data, ultimately "leading to a low-reliability level of information collected".

There were two ways that this bias was mitigated. Firstly, the researcher used triangulation by finding "other sources of data that support[ed]" and verified the findings and their interpretations, ultimately legitimising these research findings (Campuslabs, 2014). Secondly, to avoid the misinterpretation of data, the researcher "create[d] a data analysis plan" that acted as a guide through applying the data analysis method (Pasetes, 2019). This assisted the researcher in understanding the specific route to take to generate accurate interpretations of results, thus mitigating the risk of steering off into the wrong interpretation direction (Pasetes, 2019).

5.3.3. Heuristic value/anticipated contribution

The researcher hopes that the most significant contribution the current study will make is raising awareness surrounding deceptive marketing techniques; specifically, raising consumer and industry awareness around how breakfast cereal manufacturers and marketers (even those within other food sectors) are and have been misleading/deceiving/influencing consumers through the HHE when it comes to food packaging NCCs.

Not many studies were found to be conducted on FOPL NCCs, that ultimately "promote unhealthy items through the creation of health halos" (Ikonen et al., 2019: 374). Therefore, this study adds and contributes to existing knowledge within this field and is a springboard of initiation towards further research on the topic.

Additionally, no prior studies on the HHE and NCCs were found within a South African context. Therefore, the current study aims to lay a research foundation surrounding this topic within South Africa, on which further studies can be built.

With the help of future studies, the researcher believes that the current study will assist in growing consumer knowledge, particularly when it comes to the interpretation of nutritional information. By doing this, consumers will have the confidence and skills to

interpret nutritional information and to make informed purchasing decisions on any food-related products.

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APPENDICES

Annexure A: Proofreader certificate

Jacqueline Kraamwinkel

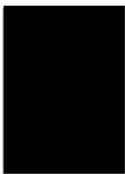
PO Box 38824 Garsfontein 0060 | [REDACTED]

25/11/2021

To whom it may concern

This is to certify that the research project **INVESTIGATING THE 'HEALTH HALO EFFECT' ON SOUTH AFRICAN CONSUMERS CREATED BY NUTRIENT CONTENT CLAIMS ON BREAKFAST CEREAL PACKAGING** by **SHANNON BEZUIDENHOUT** has been copy-edited and proofread by a professional language editor in accordance with the requirements of the partial fulfilment of the degree **BA HONOURS** in **STRATEGIC BRAND COMMUNICATION** at the **INDEPENDENT INSTITUTE OF EDUCATION: VEGA SCHOOL**. The onus is on the author to attend to the suggested changes. Furthermore, I do not take responsibility for any changes in the document after the fact.

Sincerely,



Jacky Kraamwinkel

BA (English and Psychology) – UJ
BA (Hons) English Literature – UJ
PEG membership no: KRA002

Annexure B: Example of consent form

CONSENT FORM

Explanatory Information sheet and consent form for participants To whom it may concern, My name is Shannon Bezuidenhout and I am a student at Vega School. I am currently conducting research under the supervision of Samuel Enow about investigating the extent to which South African consumers are influenced by the health halo effect, brought about by nutrient content claims on breakfast cereal packaging. I hope that this research will enhance our understanding of the extent to which consumers of different generational groups are influenced by nutrient content claims on FOPLs that seems to be to a large degree overlooked in everyday life. I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.
What will I be doing if I participate in your study? I would like to invite you to participate in this research because you meet the target populations criteria requirements. If you decide to participate in this research, I would like to involve you in a semi structured focus group interview . 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 experience with nutrient content claims on breakfast cereal packaging. 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 Vega School, 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 BA Honours in Strategic Brand Communication. 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.

My contact details are as follows:

Shannon Bezuidenhout



The contact details of my supervisor are as follows:

Samuel Enow



Participant or respondent consent

I, _____, agree to participate in the research conducted by Shannon Bezuidenhout about investigating the extent to which South African consumers are influenced by the health halo effect, brought about by nutrient content claims on breakfast cereal packaging.

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

Annexure C: Example of audio/video recording consent form

CONSENT FORM FOR AUDIO OR VIDEO RECORDING

Consent form for participants	
I, _____, agree to allow Shannon Bezuidenhout to audio record my interviews as part of the research about investigating the extent to which South African consumers are influenced by the health halo effect, brought about by nutrient content claims on breakfast cereal packaging. 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; and • 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

Annexure D: Ethical clearance letter



21st June 2021

Student name: Shannon Bezuidenhout

Student number: [REDACTED]

Campus: Cape Town

Re: Approval of RESE8419 Proposal and Ethics Clearance

HONOURS ETHICAL CLEARANCE LETTER

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

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

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

We wish you all the best with your research!

GENERAL CONDITIONS TO BE FULFILLED IN RELATION TO RESEARCH

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

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

Permission is granted subject to the following conditions:

1. The researcher(s) will need to obtain informed consent in writing from all of the participants in his/ her sample if the study is not anonymous.
2. The researcher(s) may only use the data collected for research purposes and in no other way.

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

Supervisor name: Samuel Enow

Signature:



Campus Postgraduate Coordinator (CPC) name: Carol Affleck

Signature:



Annexure E: Ethics checklist



Vega Ethics checklist: RESE8419/p/w

Student Details												
Title	Prof	☐	Dr	☐	Ms	☒	Mrs	☐	Mr	☐	Mx	☐
First name(s)	Shannon											
Last name(s)	Bezuidenhout											
Title of study	Investigating the "Health Halo Effect" on South African consumers created by nutrient content claims on breakfast cereal packaging											
Qualification	BA Honours in Strategic Brand Communication											

Supervisor Details												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	☒	Mx	☐
First and last names	Samuel Enow											

Co-supervisor Details (if applicable)												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☐	Mr	☐	Mx	☐
First and last names	Click or tap here to enter text.											

Explaining your research process						
Philosophical paradigm	Positivism	☐	Interpretivism	☒	Constructivism	☐
	Realism	☐	Objectivism	☐	Pragmatism	☐
	Functionalist	☐	Subjectivism	☐	Humanist	☐
	Other:					
Research design:	Interview	☒	Questionnaire (self administered)	☐	Focus group	☐
	Ethnography/ Observation	☐	Artefact analysis/website/ social media analysis	☐	Action Research	☐
	Case Study	☐	Design Research (Practice based)	☐		☐
	Other (if so, state)	☒	One on one sem structured nterv ews			
Brief explanation of the population and number of participants/items	3 nd v dua s from each generat on of X, Y and Z. 9 part c pants a together					
Target group sampling methods/artefact (No under 18's or vulnerable groups allowed)	Purposive	☒	Random	☐	Snowball	☐
	Convenient	☐	Stratified	☐	Census	
	Explain selection process	Click or tap here to enter text.				

Ethics		
Documentation submitted with proposal	Gatekeeper's letter (institutional consent)	☐
	Completed Annexure E if you conduct research on IIE sites/students/staff	☐
	Instrument(s) (interview schedule or questionnaire)	☒
	Participant or respondent consent form	☒

Campus ethics committee recommendation	
Proposal has been reviewed by the supervisor and necessary ethics considerations have been included. ☒ Accepted as is and provide letter ☐ Accepted with provisions: Nature of provision: e.g. Instrument is not sufficient / included and need to be signed off by the supervisor ☐ Major issues: Student should not continue with fieldwork. Actions to be taken: Click or tap here to enter text.	
Supervisor signature	
	2021/06/25
Co-supervisor/Campus ethics panel member signature	
	2021/07/20

Annexure F: Interview discussion guide

Question/discussion guide

Investigating the Health Halo effect on South African consumers created by nutrient content claims on breakfast cereal packaging.

Warm up questions

1. What type of cereals do you generally buy?
2. Why do you buy these cereals?
3. Why do you buy and consume breakfast cereal?
4. What is most important to you when buying breakfast cereal?
5. What do you think attracts you to breakfast cereal packaging?

Main questions

6. What attracts you to the cereals that you buy?
7. Do you read the front labels or the back labels on breakfast cereal packaging?
8. If you do, why do you read these labels?
9. What claims attract you to the cereal that you buy?
10. Do you feel that you can make a good decision when based on reading the back nutritional table?
11. Do you consider yourself to be influenced by nutrient content claims on breakfast cereal packaging?

Annexure G: Final research report summary document table

TITLE: Investigating the “Health Halo Effect” on South African consumers created by nutrient content claims on breakfast cereal packaging.

Research Purpose	Primary Research Question	Research Rationale	Seminal Authors/ Sources	Lit Review Conceptual Framework	Paradigm	Approach	Data Collection Method(s)	Ethics	Key Findings	Recommendations
Investigate factors that contribute to the influence of the “Health Halo Effect” on South African consumers brought about by nutrient content claims on breakfast cereal packaging	What factors contribute to the influence of the HHE on South African consumers brought about by NCCs on breakfast cereal packaging?	- Global epidemic of “diet-related diseases” Rising due to immense overconsumption of e.g. trans-fats and sugar (World Health Organization 2020) - Chronic diseases are plaguing society (Denton 2016) - Resulting from “biological dysfunction” these diseases are caused by overconsumption of unhealthy ingredients (Chadwick 2004; Denton 2016; Ogundimu 2018) - To curb this epidemic consumers “need to know how multiple nutrients in a diet interact and affect the human body’s functions” (Denton 2016) - An approach to combat obesity is to educate individuals about “nutrition and the nutritional components of the food they purchase” (Arsenault 2010: 1). Educating on these aspects will assist in the fight against all other diet-related diseases	- Scott Burton - Christopher L. Newman - Aparna Sundar - Frank R. Kardes - Daniel Kahneman - Amos Tversky - Je Niederdeppe - Francesca R. Dillman-Carpentier - Lindsey Smith-Aillie - Richard L. Schmalensee	Title 1 Can health “halos” extend to food packaging? An investigation into food healthfulness perceptions and serving sizes on consumption decisions Title 2 Nutrient Content Claims: How they impact Perceived Healthfulness of Fortified Snack Foods and the Moderating Effects of Nutrition Facts Labels Title 3 Health Halo Effects from Product Titles and Nutrient Content Claims in the Context of “Protein” Bars Title 4 Consumer Effects of Front-of-Package Nutrition Labelling: An interdisciplinary meta-analysis Title 5 Investigating the Perceptual and Attitudinal Responses of Consumers toward Health Halo Labels in Food Products: A	Interpretivist An interpretivist view Ontology Each person holds contrasting world views where reality differs depending on e.g. experiences and culture. By acknowledging various and valid realities, a more complex, holistic understanding surrounding the area of study develops. Epistemology This is an essential source of information or understanding people (Bezuidenhout et al. 2014: 29). There is never a sense of generalisation as what is considered truth and real depends on individual interpretations.	Qualitative Population Individuals (no gender restrictions) residing in South Africa who regularly purchase and consume breakfast cereals. Focus is placed on three generations: - Generation X (1965 – 1980) - Generation Y/Millennials (1981 – 1996) - Generation Z/iGen (1997 – 2012)	in-depth open-ended one-on-one interviews	Informed consent, permission and voluntary participation - Ethical clearance and institutional permission granted via a consent form submitted to the E “[A]ll relevant information/any possible risks of participation” were disclosed to each participant e.g. research goals and their right to withdraw (Creswell et al. 2019; Vanclay et al. 2013: 246). After this informed consent was recorded via consent forms. - Permission was granted by each participant in the form of an Audio-recording consent form or the researcher to video record each interview (Vanclay et al. 2013). Protection from harm - All participants protected from harm during the research process. Remaining from sensitive questions could have arisen during interviews (Vanclay et al. 2013).	Research Q 1: What factors contribute to the influence of the HHE on South African consumers brought about by NCCs on breakfast cereal packaging? - Participants lacked the ability to correctly read and interpret nutritional information within the nutritional contents table on breakfast cereal packaging. - NCCs do influence participants. - Participants tended to make assumptions about cereal healthfulness without sufficient information. - Summary factors involve the lack of knowledge when interpreting and reading nutritional information. NCCs influence consumer decisions when purchasing cereal and assumptions about cereal healthfulness are made without sufficient information. - Additional finding: Participants possessed a certain level of awareness towards the unhealthy aspects of cereal and the potential	5 recommendations on future studies to further the current research topic - All future studies recommended to be furthered with a larger sample. Study 1: Gender-based - A three-tier gender-based (female, male and other) study to explore the relationship between gender, the HHE, NCCs and interpretations of nutritional information. Study 2: Certain levels of awareness - Study to determine consumers’ actual level of awareness surrounding these discussed aspects. - Also suggesting this study be a mixed-method study. Study 3: Most attractive nutrient claims and why - Study to delve deeper into research findings that address the type of NCCs to which cereal consumers are most attracted. Done to explore the most attractive nutrient claim/s, however on other food products (i.e. health bars). - Also recommending that there is a focus on why

		- o Nutritional labelling provides consumers with the necessary information to make educated and informed purchase decisions (Arsenault 2010: 1) - o It was found that cereal manufacturers are guilty of making misleading claims when it comes to the nutritional aspects of their products (Rao & Wang 2017) - o As there is a shared lack of knowledge when it comes to nutrition, consumers may be impacted by the HHE due to these deceptive claims (Jacoby et al 1977) - o The study will assist in growing consumer knowledge when it comes to the interpretation of cereal nutritional information, guiding and motivating individuals to make informed purchasing decisions regarding breakfast cereals - o Ultimately, the aim is to raise consumer and industry awareness around how breakfast cereal manufacturers (even those within other food sectors) are and have been misleading and deceiving consumers through the HHE when it comes to cereal packaging NCCs		Kolkata-based Study Title 6 An exploration of the influence of food labels on South African consumers' purchasing behaviour Title 7 Consumers' responses to front-of-pack labels that vary by interpretive content Title 8 Consumers' Opinions and Use of Food Labels: Nutrition and Health Claims Results from Uruguay Title 9 Making Sense of Information Overload: Consumer Ranking of Nutritional Claims in Cereal-Based Products Title 10 Perception of the use and understanding of nutrition labels among different socioeconomic groups in Mexico: a qualitative study	(Bezuidenhout et al 2014)			Anonymity and confidentiality o Participants' privacy honoured by ensuring anonymity and confidentiality (Creswell et al 2019). Also retained from disclosing any identifiable participant information and removed all participant names when compiling and interpreting the research findings (Creswell et al 2019; Vanclay et al 2013)	deception of FOPLs NCCs Research Q 2 To what type of nutrient claim/s on breakfast cereal packaging are South African consumers most attracted? - o Participants were most attracted to cereal packaging sugar-related NCCs (such as no reduced or low sugar) Research Q 3 How do different generational consumer groups interpret NCCs on breakfast cereal packaging? - o Participants belonging to the X, Y, and Z generations did not interpret NCCs differently. However, rather than age, it was found that the progression of time and the development of technology has caused participant views and perspectives towards healthfulness NCCs and the interpretation of nutritional labelling to evolve	consumers are most attracted to these specific claims - o Suggested that this study be a mixed-method study Study 4 Why there is distrust in cereal manufacturers - o Further qualitative study (with a larger sample) be conducted to determine which cereal brands/manufacturers participants trust and distrust Study 5 Generational group and income level - o Further mixed-method study conducted to collect comprehensive and rich data from a larger sample group - o This study also is done with participants from various SEM levels, aiming to determine if varying income levels may lead individuals to interpret and be influenced by NCCs on cereal differently from each other
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Research Problem	Secondary Questions	Key Concepts	Key Theories			Sampling	Data Analysis Method	Limitations	Anticipated Contribution	
- Advertisers use deceptive marketing techniques involving NCCs on breakfast cereals FOPLs (Steenkamp 2015 Muela-Molina 2014) - Techniques create an HHE causing consumers to infer a generalised perception about the overall healthfulness of the cereal (Konen et al 2019) - This unreliable information misleads consumers into buying something not intended to buy (Frohlich & Calio 2014) - Long term this can negatively affect consumers' health "due to the consumption of products that are not as harmless as advertised" (Muela-Molina 2014)	- What type of nutrient claim/s on breakfast cereal packaging are South African consumers most attracted to? - How do different generational consumer groups interpret nutrient content claims on breakfast cereal packaging?	Primary key terms "Health Halo Effect" - Nutrient content claims - Front of packaging labels Secondary key terms - South African consumer interpretation of food labels - Front of packaging label content claim layout and formatting	the "Health Halo Effect"			- non-probability purposive sampling method - Small sample of three individuals from each mentioned generation. As there were three specified generations within the study, overall nine participants were used.	Thematic analysis Six-phase thematic analysis approach	Limitations Socially desirable responding (SDR) - SDR is the inclination to avourably present oneself to avoid judgement or to conform to societal norms (He et al 2015). Especially occurring during socially sensitive topics such as dietary intake. - Participant SDR may have occurred within the current study that focused on how NCCs impact individuals ultimately focusing on nutritional dietary knowledge/awareness. Gender of participants - No limitations were set on the target participants' gender; thus, results were possibly skewed as there was not an even balance of gender within the study. - Concluding that the current study's findings cannot be generalised to a broader population. Time constraints - Researchers need sufficient time to source and contact participants to "collect the data from them and then still analyse and write up [research findings]" (Bezuidenhout et al 2014: 145). These constraints are a threat to any study. Delimitations Small sample size	Most significant contribution - Raising consumer and industry awareness around how cereal manufacturers and marketers (even those within other food sectors) are and have been misleading/deceiving/influencing consumers through the HHE. Other contributions - Adds to existing knowledge and is a springboard for initiation towards further research on the topic of NCCs promoting "unhealthy items through the creation of health halos" (Konen et al 2019: 374). - No prior studies found on the HHE and NCCs within South African context; hence, the current study aims to lay a research foundation surrounding this topic within South Africa on which further studies can be built. - Current study will assist in growing consumer knowledge, particularly when it comes to the interpretation of nutritional information. Ultimately giving consumers confidence and skills to interpret nutritional information and to make informed purchasing decisions on any food-related products.	

								- o he sample size was limited to a small collection o nine participants due to time constraints his small sample led to concerns surrounding saturation as “[ailure to reach data saturation” impacts research quality (Bowen 2008 cited in Fusch & Ness 2015 1408) Conceptual approach/design - o Within an exploratory approach a level o bias arises when interpreting qualitative participant data Ultimately “leading to a low-reliability level o in ormation collected” (Dudovskiy 2018)		
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