



Forecasting a Voice Revolution in South Africa: The Adoption of Voice Shopping Amongst Generation Z Consumers.

By

Keosha Singh

A research project submitted in fulfilment of the requirements for the
BCom Honours in Strategic Brand Management

at the

Independent Institute of Education: Vega School

Supervisor: Simon Grainger

Submission date: November 2021

Word Count: 11102

ABSTRACT

This qualitative research serves an informative and advisory role to South African brands and marketing firms with regards to whether voice marketing is a viable research and development investment within the next decade. There is currently a lack of research around voice shopping in the South African context and how it can influence ecommerce and consumerism in general. Given that voice shopping has been well integrated in certain first world countries (Klaus & Zaichkowsky, 2021), this study was conducted to analyse how South African Generation Z consumers may adopt voice shopping and how it can be integrated in a South African context.

From a sample of 20 South African Generation Z consumers, 9 were selected using purposive, non-probability sampling for a semi-structured interview process which took place over Google Meet calls. In order to gain a well-rounded South African perspective, 3 participants were each chosen from the country's most populated cities: Durban, Cape Town and Johannesburg.

As a result, it was discovered that there was a common theme of acceptance and positivity amongst South African Generation Z consumers towards voice shopping. These themes were based on the perceptions of convenience, speed and the ability to multi-task or complete tasks hands-free.

For brand strategists, these insights are directly relevant to optimising the consumer decision making journey, in terms of McKinsey's (2009) model, by leveraging voice assistants as a new channel of commerce. Thus, by investigating the adoption of this technology, this research aims to enable brand managers to prepare for the possible shift towards voice in the near future (Klaus & Zaichkowsky, 2021).

Generation Z consumers were focused on in this study due to their digital nativity; because of this characteristic, these consumers are more accepting of new technology than older generations because they were born in a time where the internet already existed (Turner, 2015)

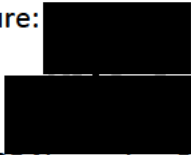
Due to South Africa's slow adoption of voice assistants, an early investment in voice commerce innovation would enable a brand to improve its competitive advantage by being the first to introduce a global trend to South Africa as well to open a new avenue of commerce for to South African consumers. Thus, this research is intended to assist South African brands in strengthening their agility by adapting to unprecedented technological changes in the next decade of brand building.

Key words: voice shopping, smart assistant, artificial intelligence, smart speaker, Generation Z, artificial intelligence.

DECLARATION

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

Signature:

The signature and name of the student are redacted with black boxes.

Date: 28 November 2021

TABLE OF CONTENTS

Abstract	2
Declaration	4
1. Introduction	8
1.1 Rationale	8
1.2 Problem Statement	9
1.3 Purpose Statement	10
1.3.1 Research Goal	10
1.3.2 Research Question	10
1.3.3 Secondary questions	10
1.4 Objectives	10
2. Literature Review	11
2.1 Conceptualisation	11
2.2 Theoretical Foundation	13
2.3 Review	15
3. Methodology	21
3.1 Paradigm	21
3.2 Research Approach and Design	22
3.3 Population	23
3.4 Sampling	23
3.5 Data collection methods	25
3.6 Data analysis	28

4. Findings and Interpretation of Findings	29
4.1 Presentation of findings	30
4.2 Interpretations and answering secondary research questions	34
4.3 Trustworthiness	37
5 Conclusion	37
5.1 Concluding the main research question.	37
5.2 Implications of Findings for Future Practices	39
5.3 Heuristic Value	39
5.4 Ethical Implications	40
5.5 Limitations	41
6 reference list	43
7. Annexures	47
7.1 Annexure A Interview Questions	47
7.2 Annexure B Concept Document	48
7.3 Annexure J Consent Form	49
7.4 Annexure K Consent form for recording	51
7.5 Annexure X Ethics Checklist	52
7.6 Annexure Z Clearance letter	53

List of Annexures

7.1 Annexure A Interview Questions	47
7.2 Annexure B Concept Document	48
7.3 Annexure J Consent Form	49
7.4 Annexure K Consent form for recording	51
7.5 Annexure X Ethics Checklist	52
7.6 Annexure Z Clearance letter	53

1 INTRODUCTION

Brands need to be agile in adopting new technological innovations to compete more effectively. Voice shopping is currently a global trend, however South African brands have not yet adopted this technology. Although voice assistants are available in South Africa, voice shopping technology is not widely accessible yet.

However, voice assistants can be used during the information-search phase of the consumer decision making process (Hoy, 2018). Thus, South Africa brand managers need to be informed about voice as a new avenue of commerce. Given that Generation Z consumers are considered Digital Natives and they are the prime consumers of tomorrow (Turner, 2015), they will be the focal generation of this study.

The objective of this study is to collate qualitative data about the perceptions of Generation-Z consumers in South Africa towards voice shopping. This is intended to inform brands how future consumers would adopt voice shopping and how they believe it could be integrated into their consumer decision journey.

This study will employ an interpretivist paradigm and will deliberate relevant literature upon the theoretical foundation of Hassenzahl's Model of User Experience (2010) and McKinsey's Circular Model of the Consumer Decision Journey (2009).

The outcome of this research is for digital marketing companies and brands in South Africa to assess whether voice marketing is a viable research and development investment.

1.1 Rationale

Due to the recent exponential growth of e-commerce, brands need to explore new digital avenues which consumers are growing towards, as this will inform long-term brand and business strategies.

As a result of COVID-19, there has been a rapid increase in e-commerce, during and after the COVID-19 pandemic, consequently making consumers more comfortable with online

shopping (Mishra and Shukla, 2020). Voice assistants are used worldwide in households, particularly for shopping (Mishra and Shukla, 2020).

However, South African brands and consumers have not capitalised on the voice assistants as an avenue of commerce. Furthermore, there is little to no research thereof. Thus, leading to important questions of how South African consumers currently perceive voice assistants, whether voice shopping is a familiar phenomenon for South African consumers and it sparks curiosity about what the reasons are for larger online retailers, such as Takealot, for not innovating towards voice commerce.

Therein lies the foundation for further research into Generation-Z consumer interest. Understanding how voice commerce may be adopted by this generation will inform brands about a future digital trend, now.

This may provide the basis for research and development in voice commerce for digital marketing companies and brands as an effort to leverage their ability to adapt to the consumer migration towards voice commerce.

1. 2 Problem statement

Voice assistants in the form of smart speakers are used widely in homes around the world for the purpose of shopping (Mishra and Shukla, 2020). However, there is limited research on voice marketing, voice shopping and South African Gen-Z consumer perceptions of it in South Africa. Thus, more research needs to be conducted on this topic to deeply understand whether voice marketing could become a new avenue of commerce for consumers in South Africa.

Given that Generation-Z are the prime consumers of the next decade, understanding their perceptions towards voice shopping will provide an indication their receptiveness to adopt voice shopping in the next decade (Whang, 2018). Thus, indicating how brands need to act accordingly.

This will inform brands and digital marketing firms about how voice marketing could become a significant channel to consider in their digital marketing and SEO strategies.

1.3 Purpose Statement

1.3.1 Research Goal

To understand how South African Generation Z consumers currently perceive voice shopping and how it may influence their adoption of voice shopping in the next decade.

1.3.2 Research Question

How will voice shopping be adopted amongst South African Generation-Z consumers?

1.3.3 Secondary questions

- I. What are the current perceptions of South Africa generation-Z consumers towards voice shopping?
- II. How do South African Generation-Z consumers currently use voice assistants?
- III. How do South African Generation-Z consumers believe voice assistants could be useful for shopping?

1.4 Objectives

- I. To determine what perceptions South African Generation-Z consumers currently have towards voice shopping.
- II. To determine for what purposes South African Generation-Z consumers currently use voice assistants.
- III. To determine how South African Generation Z consumers believe voice assistants could be effectively integrated in their shopping experience.

2 LITERATURE REVIEW

2.1 Conceptualisation

2.1.1 Voice assistant

A conversational type of technology which is artificially intelligent and uses voice- recognition, language processing algorithms and voice synthesis to understand voice commands from a human being and respond with relevant information or perform a requested action, such as searching for products online (Mari, 2019). Voice assistants are centric to this study to understand how it will be adopted as a new technology in the next decade in South Africa.

2.1.2 Voice shopping

The process of a user commanding a voice assistant to search for product information or to make a purchase on the user's behalf (Kinsella & Mutchler, 2018). Voice shopping is the focal functional attribute of voice assistants which is under study in this research.

2.1.3 Voice revolution

The rapid increase of voice-orientated products across several disciplines means that consumers are using their voices to interact with technology and products more than ever before (Shih, 2020). The usage of voice is radicalising the way consumers buy products through voice assistants, thus is it a voice revolution.

2.1.4 Digital Native

People who were born after, and in the same year as, the internet was created, are considered digital natives because they have not experienced life before the internet and digitalisation (Turner, 2015). This group is considered as those born after 1997, hence the focus on Generation Z consumers. They are most relevant to this study because they are the most likely to adopt new technologies due to their digital nativity.

2.1.5 Generation Z consumers

Generation Z consumers are described as those born between 1997 to 2010 (Turner, 2015). Thus, as of 2021, Generation Z consumers are aged between ten to twenty- four years. South African Generation G consumers are the focal group of this study due to their digital nativity.

2.1.6 Smart technology

In this context, a technology is referred to as ‘smart’ when it is an electronic device or system that can be connected to the internet and used interactively (Mari, 2019).

2.1.7 Artificial Intelligence

The simulation of human intelligence incorporated into technological devices, such as voice assistants, to enable them to think as a human being would (Mari, 2018).

2.2 Theoretical Foundation

This study will employ a foundation of two theoretical frameworks: The Model of User Experience by Hassenzahl (2010) and The Circular Model of the Consumer Decision Journey by McKinsey (2009).

Hassenzahl's Model of User Experience suggests that consumers perceive product quality according to two dimensions: pragmatic quality and hedonic quality as depicted below (Hassenzahl, 2010).

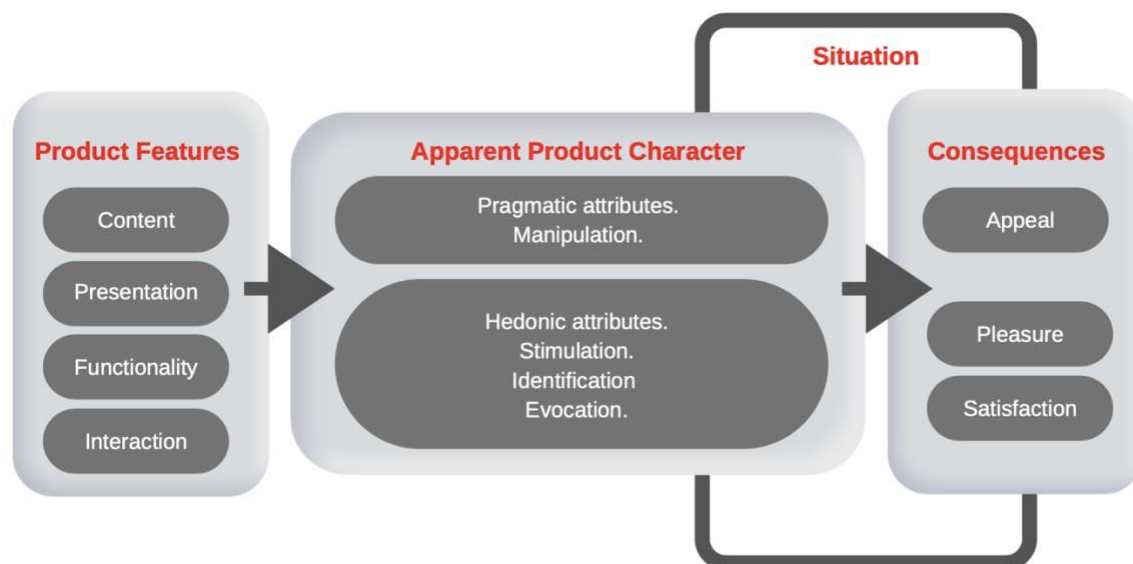


Figure 1: Model of User Experience (Hassenzahl, 2010)

Pragmatic quality focuses on the product's utility and usability in relation to potential tasks such as making a phone call, searching for a website or buying a product; this is referred to as 'do-goals' (Hassenzahl, 2010). Hedonic quality supports the achievement of 'be-goals' such as 'being competent' or 'being special' (Hassenzahl, 2010). According to Hassenzahl (2010), this model can be used to deduce why a consumer owns/uses a certain product because of what goals they believe it achieves. Thus, this model will enable a critical analysis of the data

collected to understand why Generation Z consumers use and choose to buy voice assistants. Furthermore, it will enable an understanding of how useful these consumers believe voice assistants currently are, and what are the goals they need voice assistants to help them achieve, to be deemed useful in the shopping process.

The shopping process is built upon a consumer decision-making journey. This used to be a linear process of need recognition, information search, comparison, evaluation, and purchase- decision (McKinsey, 2009). However, McKinsey (2009), recognised that consumers follow a continuous, circular process when considering a purchase.

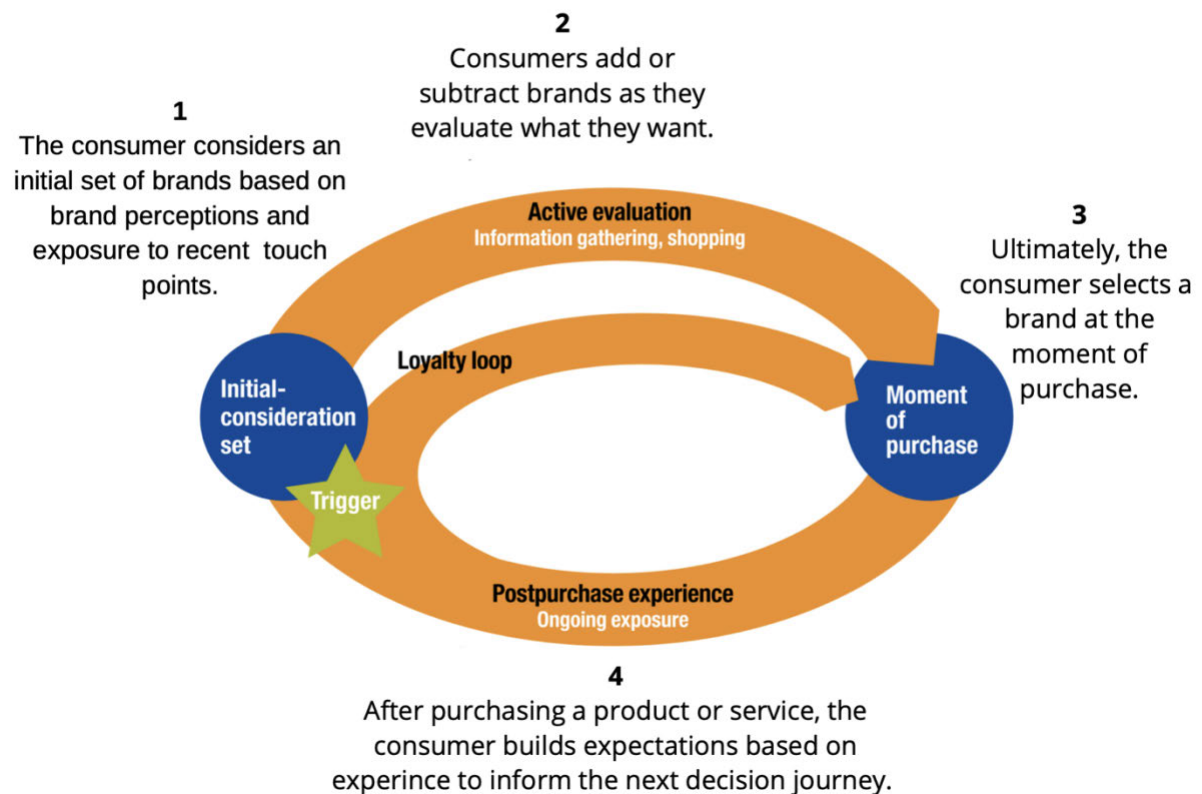


Figure 2: The Circular Consumer Decision Journey

McKinsey's model suggests that as a consumer recognises a need, they will begin to consider an initial set of brands based on existing perceptions (McKinsey, 2009). If the consumer is

loyal to a brand, they will skip to the last phase - purchase, if not, they will continue to compare and eliminate brands until a choice is made (McKinsey, 2009). Voice assistants serve a function of searching for information about different products and brand on the market and are artificially intelligent enough to advise its user of the cheapest or best-value product on offer (Whang, 2018).

Thus, voice assistants intercept the Consumer Decision Journey because users can defer the information search and evaluation phase to their smart devices. Thus, voice assistants increase convenience and speed in the Consumer Decision Journey. More importantly, before a voice assistant searches for information about a product, it asks its user if it should reorder from the brand which was bought previously, thus following the loyalty loop in McKinsey's Consumer Decision Journey. Hence, this model is pertinent to understanding how Generation Z consumers perceive voice assistants in the buying process, to understand how they may adopt these devices for shopping purposes in the next decade.

Applying the two models coherently will enable an understanding of South African Generation Z's perceived usefulness of voice assistants in their decision-making journeys.

2.3 Review

This literature review will consult an array of extant literature regarding the current global emergence of voice assistant usage for voice shopping. It will explore the current rise in voice integration across various disciplines. Moreover, it will examine the implications of voice assistants on brand building for the next decade, globally and in South Africa for the market of Generation Z consumers.

2.3.1 Voice assistants

Hoy (2018) defines a voice assistant as, 'software agents that can interpret human speech and respond via synthesised voices.' Brill, Miller and Munoz (2019) expand on this definition by adding that voice assistants are highly complex and advanced artificial intelligence-based technologies which are used by their owners to perform digital tasks such as finding a song on the internet or searching for a product online, amongst more complex activities. These devices have built-in speech-recognition systems which enable them to understand users'

needs to respond with the most relevant response (Whang, 2018). Voice assistants exist in the form of physical smart speakers, such as Amazon's Alexa and Google's Google Assistant, as well as Apple's Siri intangible voice assistant (Brill, Miller and Munoz, 2019). The ubiquity of internet connections is a testament to why voice assistants will enable brands to connect with consumers on a new dimension; voice assistants enable consumers to feel as if they are speaking to a brand - embracing the concept of brand-as-a-person.

This study will examine the usage of voice assistants by Generation Z consumers; be it a physical smart speaker or an intangible voice assistant. Furthermore, this study aims to determine how Generation Z consumers currently use these smart assistants, how they perceive its usefulness and how they believe voice assistants can enhance their lives as consumers.

2.3.2 Voice Shopping Through Voice Assistants

Voice shopping is simply the process of shopping with one's voice. This avenue of business to consumer commerce introduces a new channel for brands to consider when strategising their distribution channels and digital marketing strategies. People order products on e-commerce platforms by commanding their voice assistant verbally to do so (Whang, 2018).

After an assistant is instructed, it will use the linked payment details and address on one's smartphone to complete the order and have it delivered - end of the purchasing process (Whang, 2018).

Existing literature demonstrates that artificial intelligence continues to disrupt business models and prompt digital transformations (Simms, 2019). Voice assistants can be used to purchase products or, for searching for product information for comparison purposes (Whang, 2018). The two most important characteristics of voice shopping are ease of use and personalisation (Rowe, 2019). In the consumer decision journey, convenience is considered an accelerator of decision making because consumers prioritise brands who make their shopping experience more convenient and faster (McKinsey, 2009). Thus, it is evident that voice assistants could be welcomed by Generation Z consumers due to their offering of speed and convenience; alluding to the research problem of understanding how voice assistants might be adopted by these consumers.

When a voice assistant is asked to purchase regular items such as toilet paper, the intelligence feature of the assistant prompts it to ask the user if it can reorder the same brand as the previous order (Whang, 2018). Thus, this draws a parallel to McKinsey's loyalty loop - voice assistants can be leveraged as a brand loyalty driver in relationships with customers using specialised Search Engine Optimisation strategies.

Thus, presenting an opportunity for brands to capitalise on brand loyalty through smart assistants. This concept highlights smart assistants as an additional decision-maker in the purchasing process. This is because it actively suggests previously bought products, preventing the user from considering alternative brands or products. More importantly, this is an important concept for brand builders to consider as this feature can be leveraged to increase customer retention and increase sales of routine products.

Although voice shopping is being widely adopted due to its convenience, there are privacy concerns which cause consumers to become hesitant and reluctant to buy in to the new technology (Klaus & Zaichkowsky, 2020). Voice assistants are considered 'always-listening devices' - meaning that it is constantly receptive to conversations within its radar to facilitate a more personalised service, according to what its user(s) speak about (Klaus & Zaichkowsky, 2020). Thus, consumers who are new to the idea of smart assistants may avoid them due to their data being absorbed into the device's central database. This is a barrier to consider in the South African context as voice assistants have not yet become widely accepted.

2.3.3 The Voice Revolution

There has been a surge in voice technology across multiple disciplines such as gaming, smart television technologies, social networking, computer voice dictation and most prominently, voice assistants (Kinsella and Mutchler, 2018). During the first five years of in-home smart speakers on the global market, there was an increase of six hundred and fifty percent in the adoption rate, twice the rate of smartphone adoption (Kinsella and Mutchler, 2018). Thus, voice interaction needs to be considered as a primary contact point between brands and consumers, due to the adoption of smart assistants in homes.

Traditionally and historically, consumers go to a store, compare products, and choose one to purchase. People have always made purchases using their own hands, cards or cash. For the

first time in history, an artificially intelligent speaker who knows its user personally, will make purchases on its user's behalf. Thus, revolutionising the way consumers make purchases by decreasing the time spent comparing products,

and increasing the speed at which consumers make online purchases, due to the artificially intelligent capabilities of smart assistants.

2.3.4 Voice Shopping Worldwide

According to Kinsella and Mutchler (2018), one in five consumers in The United States of America have used voice assistants to purchase a product online. As of 2018, the voice commerce market is worth over two billion US Dollars (Kinsella & Mutchler, 2018). According to a report by McKinsey, voice technologies are forecast to have a six trillion US Dollar effect on the world economy by 2025 (Manyika, Chui, Bughin, Dobbs, Bisson & Marrs, 2013). Evidently, voice shopping has gained momentum globally. Thus, in the next decade, it can be deduced that voice commerce is an arena worth investing in for research, development and integration into digital marketing strategies worldwide.

Mari (2020) identified, in a study, that twenty-one percent of American voice assistant users have used their devices to buy entertainment products such as movies and games. Furthermore, eight percent used their voice assistant to buy household items and seven percent ordered electronic devices via Amazon's Alexa smart speaker (Mari, 2020). Thus, voice assistants have been adopted by American users to purchase products across several different markets. Furthermore, Amazon has linked Alexa's software to the America grocer, Whole Foods, enabling voice orders and deliveries within two hours (Gollnhofer & Schüller, 2018). Thus, voice commerce has integrated seamlessly into daily life in America. This is most likely due to the American nativity of Amazon, Google and Apple who are the creators of the leading voice assistants.

Klaus and Zaichkowsky (2021) found in a study that more than half of the surveyed population would use voice assistants to search for products online in order, compare prices and make informed purchases. Forty percent of the respondents suggested that voice assistants are most useful when ordering household items and food to be delivered (Klaus & Zaichkowsky, 2021).

However, the rate at which voice assistants have been adopted into Italy is slower than that of America (Klaus & Zaichkowsky, 2021). This is a result of the American perception of online shopping as low risk (Klaus & Zaichkowsky, 2021). Furthermore, the adoption of smart technology in a new country is highly dependent on the company's ability to create and maintain a functional system around it (Klaus & Zaichkowsky, 2021); voice assistants require a connection to online retailers for consumers to shop through the device. This is a barrier that may be faced in all countries except for the United States due to Amazon, Apple and Google being native to America.

2.3.5 Voice Shopping in South Africa

Voice assistants have entered the South African market, however consumers have not adopted them for the purpose of online shopping. Amazon is not yet integrated into the South Africa market; this may account for the stagnancy in the adoption of voice shopping. However, Google is fully integrated in South Africa, making it the Google Echo a more useful device for local consumers. An important factor to consider however, is that Amazon is establishing a headquarters in Cape Town as of April 2021 - an opportunity for the Amazon ecosystem of voice shopping to thrive in the next decade in South Africa (Diphoko, 2021).

There is limited research on South African consumer perceptions towards voice assistants and voice shopping. Furthermore, there is limited research on how South African currently use voice assistants.

2.3.6. Generation Z consumers

Generation Z consumers are regarded as 'digital natives' because unlike any other generation in history, they have never experienced life before the internet (Turner, 2015). Furthermore, Generation Z consumers are accustomed to being constantly connected to the world through smart devices and communication platforms through the Internet (Dolot, 2018). As of 2021, Generation Z consumers are aged between ten to twenty-four. Thus, in the year 2031, these consumers will be aged between twenty to thirty-four years. Thus, because this generation consists of the prime consumers of the next decade (Turner, 2015), it is most suitable to examine their perceptions towards new technologies. This study will adopt Turner's (2015) notion of digitally native Generation Z consumers as a means of positioning for the target

population in the context of technological advancements in the next decade of agile brand building.

Morgan (2016) argues that Generation Z consumers are the drivers of innovation for brand building because of their specific demands and expectations of innovative shopping experiences. Furthermore, Morgan (2016) argues that new technologies need to be investigated and adapted to enhance interactions between brands and consumers in congruence with the technological trends of the global Generation Z community. Thus, it is evident that Generation Z consumers should be the focal population when considering the future of brand building in the next decade.

2.3.7 Implications on Brand Building

In the traditional consumer decision-making process, consumers search for information about different brands to satisfy their needs. With the addition of a voice assistant in the process, the responsibility of searching for information and comparing products can be deferred to the assistant. Thus, radicalising the traditional decision-making process. This demands the attention of all digital strategists. Search Engine Optimisation (SEO) strategies will need to be modified by digital strategists to ensure that voice assistants are most receptive to their products first, for it to be suggested to the user to make a purchase (Whang, 2018). One would want to optimise their search engine optimisation strategies to enable voice assistants to locate their brand's products first, before other brands, and suggest it to its user.

Consumers increasingly expect to use digital platforms to obtain instant, frictionless, and memorable experiences during online shopping (Behrenbeck, 2015). Consequently, brands are constantly modifying their strategies to satisfy their customers' experiential needs in congruence with the latest technologies adopted by consumers (Fanderl, Matthey, Pratsch, & Stöber, 2019). According to Arnett, Goldfinch and Chinta, (2018), global brands are adopting voice marketing strategies in their digital marketing plans to obtain a competitive advantage. This is an insight gained through the observation of the significant influence smart technologies have on Generation Z consumers around the world due to the instantaneous gratification and convenience aspects (Arnett *et al*, 2018).

Berger, B. and Hess, T (2020) reiterate this concept by claiming that convenience and the ability to do things hands-free are the two main reasons for the preference of voice assistants over websites and mobile apps. Thus, this has a direct implication on brand

communication strategies because voice has become a new channel of commerce. Furthermore, if Generation Z consumers are migrating rapidly towards voice commerce, brand managers cannot ignore the trend now, although it currently has not gained momentum in South Africa.

2.3.8 Conclusion

It is evident that voice shopping has presented itself globally as a new avenue of commerce. Furthermore, it is an avenue which cannot be ignored by brand builders in South Africa, although voice assistants have not yet been adopted for the purpose of shopping. However, there is limited research on this technological phenomenon, hence this study will aim to add to the body of knowledge regarding South Africa Generation Z interaction with voice assistants.

3 METHODOLOGY

3.1 Paradigm

An interpretivist approach will guide this qualitative study in understanding the natural social and technological phenomenon of the adoption of voice shopping through voice assistants by Generation Z consumers in South Africa. The interpretivist perspective will direct this research to gain an in-depth understanding of meaningful social action

(Chowdhury, 2014). Furthermore, this research seeks to observe and investigate the motives, attitudes, and behavioural interactions of Generation Z consumers towards voice assistants, thus an interpretivist lens will be most useful. The epistemological position of interpretivism is that people's knowledge of reality is a social construction by human actors (Chowdhury, 2014).

Furthermore, the ontological positioning of interpretivism is that external reality is not experienced in the same way by everyone; everyone experiences a phenomenon differently (Chowdhury, 2014). Thus, this study will use focus groups to focus on understanding the different interpretations which different Generation Z consumers have towards voice assistants and shopping and gain a detailed understanding of each of their personal experiences with it. Understanding personal experiences with a new technology will be useful in understanding the details of voice shopping which allude to positive or negative perceptions.

3.2 Research Approach and Design

This study will be conducted with a qualitative approach which entails the understanding of human interaction, perception and belief Generation Z consumers associate with voice shopping. Mason (2002) describes a qualitative approach as one which gathers information on human behaviour, themes and motivations for different actions and lifestyles. Thus, this study's qualitative approach is complemented by the interpretivist paradigm due to the common ground of studying human experience.

This research will employ a qualitative approach to understand the perceptions of the South African Generation Z community towards using voice assistants for shopping purposes and how these insights could inform the future adoption of voice shopping. Thus, this study does not aim to gain a quantitative understanding of how many consumers will adopt it, but rather to understand why and how Generation Z consumers believe voice shopping could be integrated into their shopping experiences. This subjective information will enable an answer to the research question of how voice shopping will be adopted amongst South African Generation-Z consumers. Thus, creating invaluable insights for brand and business analysts to consider voice commerce as a viable investment or not.

du Plooy-Cilliers et al. (2014) describes exploratory research as the exploration of a phenomena. Voice shopping is not yet possible in South Africa and voice assistants are still in the introductory phase in the product-industry life cycle. Thus, this study applies an exploratory research design as it aims to obtain new insights in the new and unfamiliar

technological space of voice shopping. Furthermore, it aims to find new causal links between common themes across different participants.

The study will embrace an open-ended interview process in which the natural behaviour towards voice shopping and voice assistants will be explored to understand current consumer behaviour in this technological space of voice commerce.

This study will employ inductive reasoning which involves identifying specific findings, patterns, themes, or ideas from the interviews which relates to the themes of the study (du Plooy-Chillers, Davis & Bezuidenhout, 2014). Thus, the interview process will facilitate the identification of particularly common themes, problems and experiences across all participants which will drive the emergence of new links, trends and enables the expansion of knowledge about voice shopping in South Africa.

3.3 Population

Generation Z consumers in South Africa are the focus of this study due to their digital nativity and the fact that they will be the primary consumers of tomorrow (Turner, 2015). Given that online shopping gives consumers access stores around the country, it is important to study voice shopping on this broad scale. Thus, the target population is 27,5 million Generation-Z consumers in South Africa (TransUnion, 2020). Thus the unit of analysis of this study is individuals.

The accessible population for this study is 20 Generation-Z consumers in South Africa. The following parameters structure the population under study: Generation-Z (born between 1997-2010), South African nationality, daily access to Wi-Fi and the ownership of a smartphone.

3.4 Sampling

Non-probability, purposive sampling will be used. From the accessible population of 20 Generation-Z consumers in South Africa, 9 will be purposively selected. 3 participants will be selected from Cape Town, Durban and Johannesburg, each, as these are the largest cities in

South Africa in terms of population (Statista, 2021). These participants were required to have lived in their respective city for at least 1 year. Thus, these participants are more likely to be representative of the whole country.

du Plooy-Cilliers et al. (2014) states that non-probability sampling is when all units in the population do not have an equal chance of being selected for the research. This is due to the inability to access the whole Generation Z population in South Africa due to its size, time limits and limitations of resources and capabilities.

More importantly, this study is not concerned with generalising its findings to the broader population of Generation Z consumers in South Africa, but is rather interested in the details experiences of consumers with voice assistance and their personal beliefs and habits towards using them for different reasons. These insights are more valuable as it can inform brands about the personal experiences which directly impact an individual decision-making journey which is ultimately the most important point of focus when studying any channel of commerce.

Furthermore, the study requires each participant to have certain characteristics in order to qualify for the study and to be relevant to the anticipated contribution of it.

Purposive sampling will be used. According to du Plooy-Cilliers et al. (2014), purposive sampling enables the researcher to purposefully choose the elements that are deemed necessary to include in the sample, based on specific characteristics.

Thus, the respondents will be selected according to: South African nationality, birth date, ownership of a smartphone and daily access to Wi-Fi. These respondents will participate in qualitative interviews; therefore, they need to align with the characteristics. Daily access to Wi-Fi and ownership of a smartphone is crucial to the study because one cannot use a voice assistant or smart speaker without Wi-Fi and a smartphone. Thus, the participants need to be in a position where smart technology is accessible, acceptable, and understood.

It is important to note that although this study focuses on South Africans born between 1997-2010, all participants were required to be 18 years or older.

The importance of using purposive sampling stems from the findings being subjective to the personal experience of each participant who have the same characteristics in common. For instance, the findings in the study cannot be applied to a Generation Z consumer in another country because the experience of the day is participants are subjective to their South African background and the South African economy. Furthermore, the findings cannot be applied to people in previous generations because they experienced childhood before the Internet and smart technology. Therefore, their perspectives and digital abilities will vary drastically.

3.5 Data Collection Methods

3.5.1 Secondary data collection

Secondary data was collected to gain a global perspective of voice shopping and the role of voice assistants in people's lives. This consisted of sources such as journal articles, published research and other credible academic sources.

There was a significant difficulty in finding research about voice shopping or voice assistants in a South African context. Therein lay the foundation for primary research to be conducted amongst South African consumers.

3.5.2 Primary Data Collection

Individual semi-structured or 'general' interviews were to be conducted to collect qualitative data from 9 respondents. General interviews involve a conversation through some predetermined questions, but there is freedom to adapt the focus of the interview as it progresses (du Plooy-Cilliers et al., 2014).

Individual semi-structured were conducted to facilitate in-depth discussions of personal experiences and perceptions towards voice shopping to answer the research question of how Generation-Z consumers in South Africa perceive voice shopping; to understand how it may be adopted in the next decade (Dean, 2018). Such communication could not have been possible through questionnaires as respondents would have tried to write as little as possible.

The individual interview process allowed for follow-up questions to clarify the meaning of ambiguous statements or to gain a deeper insight into an interesting point. This would not have been possible in a survey scenario.

The interview process also aimed to enhance the credibility of the study, thus interviews were most complementary to gaining a realistic insight into Generation Z perceptions – correctly informing brands about current trends in South Africa and consumer behaviour towards voice shopping.

Furthermore, the individual interview process enabled participants to feel comfortable with sharing unique opinions that they may not have wanted to share in a group setting. Thus, enabling an honest reflection of opinions to draw more insightful conclusions.

The accessible population of 20 Generation-Z consumers was categorised according to their residential cities. Thereafter they were each examined by the researcher to identify which of the individuals met the population parameters, desired characteristics and were above 18 years of age.

After the filtering process, there were 6 potential participants from Durban, 3 from Cape Town and 4 from Johannesburg. Each potential participant was contacted via WhatsApp to ask them if they were willing to participate in an interview process for an honours research report. Once they agreed, they were asked to suggest their next available time slot for an online interview.

Each interview was allocated 40 minutes, but participants were asked to accommodate for a minimum of 20 minutes, however if all required questions are completed, the interview was to be concluded. Each interview was to be conducted through a laptop over Google Meet, as the study aimed to reach participants outside of Durban. Furthermore, it was safer to conduct online meetings to avoid COVID-19 vulnerability.

Each participant provided their email address to which consent forms were sent, and they were required to sign them electronically and revert. This consisted of a consent to participate form, as well as a form to gain the participant's consent to record the audio of the interview. It was made clear to each participant beforehand that their identity would be anonymous and

then names will be mentioned nowhere in the research. Furthermore, they were advised that the supervisor of this research would have access to the recordings, however they would not know the name behind the voice in the interview.

The interviews were recorded via a smartphone to record the researcher's and the participant's speech, ensuring that there was context of the participant's responses in relation to the researcher's questions. This was to ensure that there was context and clarity during the analysis process and that no bias or distortion occurred from the researcher's side.

Once each participant confirmed a date and time, an online meeting was scheduled, and they were invited to the meeting via email. The relevant interview schedule and questions are stated in annexure A.

Each participant joined the meeting using a link which was only shared with them and the researcher.

Each participant was given a brief introduction about the nature of the study to contextualise voice shopping in South Africa and why the study is important and relevant as a consumer. It was also explained that they are welcome to ask questions and speak freely to encourage honest opinions and comments.

The researcher began to record the interview with smart phone while the interview proceeded on a laptop. Each interview began with the same set of questions, which can be viewed in annexure A. However, if the participants raised a new point or mentioned something unplanned, yet valuable to the study, the researcher allowed for the focus to shift deeper into that topic. For example, one respondent mentioned that her whole family uses a smart speaker, while the majority of the participants did not own smart speakers.

Thus, more time was spent asking further questions with the participant who has a smart speaker, to gain more in-depth information about how the device has integrated into their lives, as this would assist the objective of the research and contribute more to answering the research question.

There were challenges such as connection problems with some interviewees, however most participants did not have a problem. Connectivity issues did cause communication barriers, however this was resolved by repeating questions which resulted in a longer interview.

The questions ranged from open ended questions to more focused questions such as how one feels toward voice shopping if they had to summarise their opinion as negative or positive. Therefore, participants were able to speak freely while giving a clear indication of their attitude towards accepting a new technology.

3.6 Data Analysis

A qualitative content analysis was to be used to determine patterns of common beliefs or perceptions towards voice assistants (Elo and Kyngä's, 2007). Given the exploratory nature of this research, it was important to pay attention to the details of the language used by each participant as it indicated feeling through tonality (Elo and Kyngä's, 2007). Hence a line-by-line approach was used in conjunction with a thematic coding process within the overall content analysis of the collected data. This combination aimed to enable an effective analysis and extraction of insights from the textual data (Dean, 2018). A line-by-line method aimed to enable the findings to be trustworthy as the meaning of each line was to be examined.

Once all interviews were completed, the researcher began to textualise each interview, word for word, by playing back each audio recording and simultaneously typing out each word spoken by the participant and the researcher. Please refer to annexure B for an example of a transcription from 1 of 9 interviews.

The researcher then applied a line-by-line analysis followed by a coding process which took place to highlight certain themes relevant to the study and to answer the research question. The line-by-line analysis began by reading each line of text carefully to highlight important facts, themes, meaningful opinions or significant ideas regarding the participant's attitude/experience.

Once the textual transcription and line-by-line process was completed for all 9 interviews, each piece of highlighted information was extracted and categorised according to themes.

This enabled the thematic analysis process. This was to facilitate the simplification of the raw data into meaningful information. Furthermore, it enabled a functional exploration of the perceptions of Generation-Z consumers towards voice shopping, in order to answer the research question of how voice shopping may be adopted amongst South African Generation-Z consumers.

The coded themes were sifted out and arranged according to commonalities. These themes were listed and linked to the theme structure of the research study. By categorising a large volume of data into themes, enabled a clearer understanding of the conclusions to be drawn to answer the secondary research questions. Effectively, this contributes largely to answering the main research question.

Given that groups of 3 participants from Durban, Johannesburg and Cape Town will be studied, it was important to identify common themes amongst each group before analysing the whole group of 9 collectively. Once all 9 transcriptions were analysed, information had been extracted and categorised, the researcher proceeded to identify common themes or patterns amongst the experiences of the 9 participants. Firstly, each group of 3 participants from Durban, Johannesburg and Cape Town were cross analysed to identify commonalities or themes.

Thereafter, all 9 participants were analysed as 1 group. This aimed to reveal whether Generation-Z consumers in each city have similar perceptions towards voice shopping and whether it differs to that of consumers in other cities.

Once both analyses had been conducted, the final research findings were to be filtered out and concluded. Ultimately providing insight into how willingly Generation-Z consumers in South Africa may adopt the new technology of voice shopping within the next decade.

4 FINDINGS AND INTERPRETATION OF FINDINGS

4.1 Presentation of findings

4.1.1 Where was the first time you were exposed to a smart speaker?

3 out of 9 participants had their first exposure to smart speakers through a friend or family member owning one. 3 other participants were first exposed to them via social media and YouTube videos which featured a smart speaker being used in an American person's daily life. 1 participant recalled seeing Alexa being used in an American movie and the last participant was never exposed to the concept of smart speakers prior to this research study.

4.1.2 Do you ever use smart assistants in the form of Siri or Bixby on your phone? If so, what are the reasons you use it for?

6 out of 9 participants confirmed that they engage with voice assistants on their cell phones such as Apple's Siri or Samsung's Bixby. Furthermore, the emotion expressed while confirming this was that of a comfortable, familiar nature - indicated with phrases such as 'usually,' 'always,' 'helpful,' or 'it's just a quick hey Siri.' These participants use their mobile voice assistants to message or call a person, or search for something on Google. 1 participant mentioned that Bixby makes her life convenient by being able to operate her phone's torch without having to input her password. Thus, alluding to the fact that a hands-free device which can recognise instructions via speech is a type of technology that is useful, convenient, and appreciated in one's daily life. To reiterate this finding, another 2 participants mentioned that speaking to their voice assistant while driving makes their lives convenient.

4.1.3 The main reasons the participants use their mobile voice assistants for are:

- I. Schedule appointments in calendar.
- II. Call or message someone.
- III. Search for something on Google.
- IV. Turn on phone's torch.
- V. Search for restaurant locations.

4.1.4 When considering the purchasing process in searching for information about a product, evaluating different options and then making a purchase decision, how do you feel smart speakers could assist that process?

Participant 9 expressed that if they were to use their smart speaker for shopping purposes, it would be highly useful if the speaker could record their buying patterns in order to recommend more relevant products. Furthermore, they would want the smart speaker to

lead them to smarter purchasing decisions. Thus, alluding to the notion that this Generation-Z consumer is deeply interested in the personalised experience of a smart assistant and how it can enhance their life through convenience.

The majority of the 9 participants believe a smart speaker would speed up their shopping process through the information search phase due to being able to ask the device to buy things while one is busy with other tasks. However, there is a concern regarding more expensive products as this would require more consideration and a visual evaluation of the product before buying it.

Furthermore, there are concerns that the smart speaker may slow down the purchasing process because some participants require this visual evaluation before purchasing.

4.1.5 What is the reason for you not having a smart speaker currently?

1 participant mentioned that they think the concept of smart speakers is an American, far-fetched concept that you only see in movies. Furthermore, there was a common opinion amongst all 9 participants that smart speakers are not advertised enough in South Africa for them to see the need to purchase one. Thus, they do not understand, as consumers, how these speakers could be or should be integrated into their lives.

Thus, resulting in the failure to enter the purchase-decision making process because the need for the device is not prompted mentally. One participant said, 'it's not that I don't have an interest in it, its just that I haven't thought about it.' Thus it is evident that consumers do not know what to think about the devices or why they should buy them.

4.1.6 Themes amongst Cape Town Participants

Themes amongst Cape Town participants	
Themes	Main ideas
Perception of owning a smart speaker	• Seen as convenient and simple.

Smart Speakers in South Africa	• Not prevalent. • Inevitable that we will all eventually own one. • Generation-Z consumers will aggressively adopt smart speakers.
Speech recognition	• Works all the time with mobile voice assistants.
Willingness to adopt smart speaker for voice shopping	• Interested and willing. • More willing to purchase when married and there are more tasks to remember. • It will help with time management. • Security of banking information is a barrier.

4.1.7 Themes Amongst Johannesburg Participants

Themes amongst Johannesburg participants	
Themes	Main ideas
Perception of owning a smart speaker	• Assisting with small tasks while user is busy. • Being able to multitask

	• A home assistant to remind user to switch lights or appliances off.
Smart Speakers in South Africa	• Smart speakers are currently not prevalent in the participants' environment. • There is the language barrier of 11 languages which may slow down the adoption of this technology.
Speech recognition	• Failure of the device to understand you is a huge barrier. • Siri's voice recognition is accurate.
Willingness to adopt smart speaker for voice shopping	• Trying out new technologies. • Aesthetics and specs of the new technology contributes to the decision to buy it. • Willingness to buy the device is influenced by how often and how well it is advertised.

4.1.8 Themes Amongst Durban Participants

Themes amongst Cape Town participants

Themes	Main ideas
Perception of owning a smart speaker	• Perceived as convenient, efficient, and helpful.
Smart Speakers in South Africa	• Alexa tends to suggest stores overseas which isn't helpful. • Poor Wi-Fi/signal connections lead to failure of smart technology to work.
Speech recognition	• Usually works. • Sometimes simpler language is needed.
Willingness to adopt smart speaker for voice shopping	• Very open. • Security is generally not a barrier. • Open to using Alexa for product recommendations based on buying patterns. • Willing to purchase if stronger WIFI signal was accessible.

4.2 Interpretations and Answering the Secondary Research Questions

4.2.1. *What are the current perceptions of South Africa generation-Z consumers towards voice shopping?*

All 9 participants mentioned that they enjoy online shopping – it is a familiar concept with which they feel comfortable. Thus, reverting to Turner's (2015) notion that Generation-Z

consumers are digital natives who are more comfortable with new technologies due to their inherent familiarity with the internet and technology.

Most of the participants were familiar with smart speakers. But none of them were aware that they could be used to make online purchases. Furthermore, some participants stated that smart speakers were thought of as a far-fetched concept. This alludes to another prevalent theme; many respondents mentioned that they have not been exposed to many explanatory adverts about the benefits of smart speakers and its integration into daily life – this was the reason for their lack of knowledge about smart speaker technology. Thus, demonstrating the impact that marketing has on the adoption of new technology amongst consumers. This could attribute the lack of smart speaker usage in South Africa to a lack of marketing, as opposed to a lack of consumer acceptance.

Although the participants were unfamiliar with voice shopping, they were fascinated and interested in the concept of shopping using their voices. Therefore, there is interest amongst South African Generation-Z consumers in adopting the process of voice shopping.

The participants expressed a common theme of convenience, efficiency, and usefulness with regards to integrating voice shopping into their lives. Thus, concluding that overall, their perceptions towards voice shopping is positive and accepting.

4.2.2 How do South African Generation-Z consumers currently use voice assistants?

None of the participants have ever used a voice assistant or smart speaker to make a purchase.

However, mobile voice assistants have been adopted by the majority of the sample for the purpose of scheduling appointments, calling people via cell phones, sending text messages, switching on mobile torches or searching for information on Google. Thus, it can be summarised that the respondents currently use their voice assistants for the purpose of efficiency and convenience for activities that can be completed without using one's hands; i.e. handsfree usage.

Participants who make use of these functions believe voice assistants to be convenient and helpful. However, some participants recall having difficulty with speech recognition and feel

the need to speak slower – defeating the objective of efficiency and convenience. These participants also highlighted speech recognition as a problem in the context of smart devices being programmed to recognise American accents. Thus, bringing to light a serious barrier to entry for smart speakers in South Africa as the country boasts an array of 11 languages.

It can be noted that voice assistants are a familiar concept among all 9 participants. Thus, it is possible to conclude that smart speakers would be adopted easily due to the common medium of voice control.

4.2.3 How do South African Generation-Z consumers believe voice assistants could be useful for shopping?

Participants across Durban, Johannesburg and Cape Town believe that shopping via smart speakers is convenient, efficient and could enhance their shopping experiences by personalising it. These participants were highly enthusiastic about the usage of artificial intelligence to personalise their shopping experiences through product recommendations to make online shopping processes faster and more relevant to their preferences.

However, several of participants view smart speakers as potentially dangerous third parties who will have access to their personal information and banking details – posing as a primary barrier standing in-between them and using a smart assistant to make purchases. In order for voice shopping to become a common practice in South Africa, brands will need to market a seamless, secure and protected payment process, outlined by consumer protection policies and privacy guarantees. However this barrier does not subtract from consumers' perception of usefulness of the technology – it is merely a concern. The same participants who raised this concern believe the devices to be useful in making online shopping faster and more enjoyable.

On the other hand, several of the participants considered the smart speakers as third parties but realised that the devices work with an app which is the same as a user putting their personal information and banking details into other apps and websites to pay for products. Thus, ruling out their own concern for safety.

Thus, South African Generation-Z consumers believe voice assistants could be useful for increasing the convenience, efficiency and personalisation of online shopping in the future.

4.3 Trustworthiness

The trustworthiness of this qualitative study will be enhanced by increasing the credibility, transferability, dependability, and confirmability. Bezuidenhout (2014) asserts that credibility is increased when the researcher spends long periods of time with the participants. This study's credibility is increased through the 40-minute individual interview process which enables a focus on one participant at a time; ensuring a thorough understanding of their personal experiences with voice shopping and assistants.

Confirmability refers to how well the data collected support the findings and interpretation (Bezuidenhout, 2014). The interview process enables a deeper discussion of the meanings behind opinions and beliefs - preventing misinterpretation and enabling a seamless flow of meaning from data collected to the findings and conclusions drawn from it. Thus, enhancing the confirmability of the study.

Given that this study employs one data collection method (interviews) and applies it across all 9 participants, inter-rater reliability is improved.

Transferability will be increased in this study by specifying the characteristics of each participant to ensure that should this research be conducted in a similar context, the findings will reflect similar results amongst Generation Z consumers in South Africa.

To increase dependability, a research must ensure stability within the research over time (Bezuidenhout, 2014). This study will be structured to be logical, traceable and clearly documented to prevent discrepancies, unclarity and ambiguity to ensure clear meaning and interpretation for the reader and all stakeholders.

5 CONCLUSION

5.1 Concluding The Main Research Question

The lack of advertising around smart speakers may contribute largely to slow adoption of smart speakers in South Africa in general. As experienced by all participants, there is a general

lack of knowledge regarding how smart speakers can serve its user and how it can be integrated into daily life effectively.

However, after considering the advantages of smart speakers and voice shopping, all participants expressed a great level of willingness to buy into the technology as they perceive it as a great way to manage time, multitask, order groceries and other items while they are consumed with other physical tasks.

Furthermore, in considering McKinsey's (2009) Circular Model of the Consumer Decision Journey, some participants mentioned that having a smart speaker will quicken the process of purchasing regular or monthly products. Thus, indicating that voice shopping does have a direct correlation to McKinsey's loyalty loop. This is because smart speakers are a channel for consumers to order products they need on a regular basis, faster and with less effort. Thus, serving as an opportunity for brands to retain more customers and make more sales on consumer-loyal products.

This research showed no clear evidence that a respondent was 100% against the adoption of a smart speaker or voice shopping. It was clear that the respondents were receptive to the idea of voice shopping and embraced the potential benefits.

One participant stated that their family owns a smart speaker, and they are always wanting to try new technological devices. Thus, incurring the idea that there are families who are open to devices that may seem too advanced for some. Hence there could be older consumers who feel the need for voice shopping as a new channel of commerce.

Furthermore, it is important to highlight that some participants were greatly interested in smart speakers being able to personalise their shopping experiences by observing their buying behaviour to provide new and relevant product recommendations.

Overall, even though participants were unfamiliar with the concept of voice shopping, they were still very open to integrating it into their lives. Effectively, there is positive sentiment around voice shopping amongst Generation-Z consumers in South Africa and they are willing to adopt the technology.

5.2 Implications of Findings for Future Practices

It is evident that the advertising industry has a vital role to play in the adoption of any product in the market. This study is evidence of this fact. Therefore, as smart speakers become more accessible in South Africa, brands could wait for this trend to progress naturally, or they could choose to catalyse this trend, through advertising its benefits, to optimise voice speakers as a new channel of commerce.

These findings may be absorbed into the business and brand strategies of companies in South Africa and the world, to capitalise on smart speakers as a new avenue to connect with consumers in the place they spend the most time: their homes.

From an SEO perspective, brands can leverage smart speaker technology as a new point of sale or a new brand contact point. Brands who devise the most competitive SEO strategies, tailored for smart speakers, will enable more smart speaker users to be directed to their brand first when voice shopping, increasing sales and the potential for repeat purchases. Thus, increasing brand awareness and customer loyalty as smart speakers are programmed to recommend previously purchased brands.

Given that it was evident that all respondents embraced the potential benefits of voice shopping, it is arguable that brands should not ignore this potential avenue of commerce. Furthermore, with the forces of COVID-19 causing people to spend more time at home and working from home, it is inevitable that smart speaker usage will increase exponentially.

5.3 Heuristic Value

Given that this research study was designed with a qualitative approach, it may be advised that other researchers venture into a quantitative angle to this research problem. Furthermore, it may be highly valuable for this field of study, and brands around South Africa, if prospective researchers conduct quantitative research amongst a sample size of more than 100 respondents. This is because the statistical data will inform brands, from a business strategy and financial perspective, how strong the demand is for smart speakers and how many Generation Z consumers are potentially using smart speakers in Durban, Cape Town, and Johannesburg.

Having a statistical element to this study will also enable the assignment of numerical values to feelings and perceptions, which can facilitate a forecast of how quickly voice shopping may be adopted in South Africa by Generation Z consumers.

To reiterate the value of conducting the above-mentioned research, this current study only interviewed 9 participants. This sample size allowed for intimate conversation and an understanding, however it is limited and this field of study could benefit largely from a larger sample size across South Africa.

5.4 Ethical Implications

Each participant was informed of the nature and objectives of the study before making a decision to participate. Each participant was required to sign a consent form which detailed the contents of the study, background information, the requirements as a participant and an explanation of how their identity was to be kept confidential.

Furthermore, they were informed about the interview process and how their information will only be used for analysis and not be distributed to any other party besides in the final report which only a supervisor will see. The data collected from each interview will remain confidential and will not reveal the identity of any respondents.

It was ensured that all participants in the sample were over 18 years of age and were at liberty to volunteer their own participation in the study.

Each participant was provided with a consent form to permit the recording of the audio of their interview which will be used for a detailed data analysis by the researcher only. This data will be shared in a password-protected file with the researcher's supervisor, however (s)he will not share the file with any external parties.

It was ensured that all sources used in this study are credible, academic sources.

It was ensured that all interviewees were not be forced to discuss emotional experiences with which they were not comfortable sharing.

Given that the participants will be selected from a sample of individuals known by the researcher, it will be ensured that there is no discussion of personal relations or topics and the relationship between the participant and researcher does not affect the interview process, to prevent bias.

5.5 Limitations

There is a time limitation leading to interviewing only 9 participants or 3 from each city; Durban, Cape Town and Johannesburg. This is due to the short time frame of the research process within 7 months. Due to the study's interest in the large population of all South African Generation Z consumers, interviewing only 9 participants prevents this research from being generalised to the larger population.

Thus, this research will be very specific to the personal realities of the 9 participants. However, they do have the common ground of being South African, belonging to the Generation Z population, having daily access to Wi-Fi and owning a smartphone.

This will require the investigation of more information and deeper insights from each participant to make more accurate conclusions. However, a smaller sample still results in a more acute understanding of the phenomenon under study.

Given the parameters of the population, there is a limitation of selecting the sample from the people known to the researcher, who match the characteristics required for this research. This is further limited to the number of people known to the researcher in KwaZulu-Natal, Gauteng and Western Cape. Furthermore, there may be an incurrence of bias in the researcher's choice of sampling due to the above-mentioned reasons. However, it was ensured that no personal matters or ideas were discussed during the interview. Furthermore, it was ensured that the interview structure abided by the flow of questions that were mapped out in the research proposal process.

There was also a limitation of not being able to have face to face interviews which would have enabled an observation of body language and overall personal expression. This was due to COVID-19 safety protocols as well as not being able to travel to Johannesburg or Cape Town

to conduct interviews. However, this also served as a delimitation as it saved time, money and provided well-rounded perspective from participants all around South Africa.

6 REFERENCE LIST

Arnett, J., Goldfinch, B., & Chinta, R. (2018). Multi-dimensional nature of innovation at Amazon. *International Journal of Business Innovation and Research*, 15(1), 1–13. DOI:10.1504/IJBIR.2018.088461.

Berger, B. and Hess, T. 2020. Why another customer channel? Consumers' perceived benefits and costs of voice commerce. In *Proceedings of the 53rd Hawaii International Conference on System Sciences*.

Behrenbeck, K. (2015). Perspectives on retail and consumer goods. Perspectives on retail and consumer goods. [Online]. Available at: https://www.mckinsey.com/~media/McKinsey/Industries/Retail/OurInsights/PerspectivesonretailandconsumergoodsNumber7/Perspectives-on-Retail-and-Consumer-Goods_Issue-7.ashx. [Accessed 16 May 2021].

Brill, T.M., Munoz, L. and Miller, R.J., 2019. Siri, Alexa, and other digital assistants: a study of customer satisfaction with artificial intelligence applications. *Journal of Marketing Management*, 35(15-16), pp.1401-1436.

Chowdhury, M.F., 2014. Interpretivism in aiding our understanding of the contemporary social world. *Open Journal of Philosophy*, 2014.

Dean, B. A. (2018). The interpretivist and the learner. *International Journal of Doctoral Studies*, 13, 1-8. [Online] Available at: <https://doi.org/10.28945/3936> [Accessed 7 April 2021].

Diphoko, W. 2021. Is South Africa ready for the Amazon effect?, 2 May 2021. [Online]. Available at: <https://www.iol.co.za/technology/techsperts/is-south-africa-ready-for-the-amazon-effect-84f796d1-9dbf-4cd2-bd68-390bd6e8b199> [Accessed 16 May 2021].

Dolot, A., 2018. The characteristics of Generation Z. *E-mentor*, 74(2), pp.44-50. du Plooy-Cilliers, F., Davis, C. and Bezuidenhout, R.-M., 2014. *Research Matters*. 1st ed. Cape Town: Juta & Company Ltd.

du Plooy-Cilliers, F., Davis, C. and Bezuidenhout, R.-M., 2014. *Research Matters*. 1st ed. Cape Town: Juta & Company Ltd.

Elo, S. and Kyngäs, H., 2008. The qualitative content analysis process. *Journal of advanced nursing*, 62(1), pp.107-115.

Fanderl, H., Matthey, A., Pratsch S. and Stöber, J. 2019. Driving the automotive customer experience towards the age of mobility¹. [Online]. Available at: [https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/driving-the-](https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/driving-the-automotive-customer-experience-toward-the-age-of-mobility)

[automotive-customer-experience-toward-the-age-of-mobility](https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/driving-the-automotive-customer-experience-toward-the-age-of-mobility)

Gollnhofer, J. F., & Schüller, S. 2018. Sensing the Vocal Age: Managing Voice Touchpoints on Alexa. Marketing Review St. Gallen,

Hassenzahl, M., 2010. Experience design: Technology for all the right reasons. *Synthesis lectures on human-centered informatics*, 3(1), pp.1-95.

Hoy, M. (2018) Alexa, Siri, Cortana, and More: An Introduction to Voice Assistants, Medical Reference Services Quarterly, 37:1, 81-88, DOI: 10.1080/02763869.2018.1404391

Kinsella, B., & Mutchler, A. 2018. Voice shopping: Consumer adoption report. Voicebot.ai. [Online]. Available at: <https://voicebot.ai/wp-content/uploads/2018/06/voice-shopping-consumer-adoption-report-june-2018-voicebot-voysis.pdf%0D%0A>. [Accessed 16 May 2021].

Klaus, P. and Zaichkowsky, J.L., 2021. The convenience of shopping via voice AI: Introducing AIDM. *Journal of Retailing and Consumer Services*, p.102

Mari, A. and Algesheimer, R., 2021, January. The Role of Trusting Beliefs in Voice Assistants during Voice Shopping. In *Proceedings of the 54th Hawaii International Conference on System Sciences*. [Online] Available at: <https://scholarspace.manoa.hawaii.edu/bitstream/10125/71112/0401.pdf> [Accessed 6 April 2021].

Mason, J., 2002. *Qualitative Researching*. Second ed. London: Sage Publications Ltd.

Manyika, J., Chui, M., Bughin, J., Dobbs, R., Bisson, P. and Marrs, A., 2013. Disruptive technologies: Advances that will transform life, business, and the global economy (Vol. 180, pp. 17-21). San Francisco, CA: McKinsey Global Institute.

McKinsey. 2009. The consumer decision journey, 1 June 2009. [Online]. Available at: <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-consumer-decision-journey> [Accessed 16 May 2021].

Mishra, A., & Shukla, A. (2020). Psychological Determinants of Consumer's Usage, Satisfaction, and Word-of-Mouth Morgan, J., 2016. Generation Z and the 6 forces shaping the future of business.

Recuperado de: <https://www.inc.com/jacob-morgan/generation-z-and-the-6-forces-shaping-the-future-of-business.html>.

Recommendations Toward Smart Voice Assistants. Re-imagining Diffusion and Adoption of Information Technology and Systems: A Continuing Conversation, 617, 274 - 283.

Shih, W., 2020. Voice Revolution. *Library Technology Reports*, 56(4), pp.5-13.

Simms, K. 2019. How voice assistants could change the way we shop. Harvard Business Review, 2–7.[Online]. Available at: <https://hbr.org/2019/05/how-voice-assistants-could-change-the-way-we-shop>. [Accessed 16 May 2021].

Statista. 2021. Largest cities in South Africa in 2021, by number of inhabitants. [Online]. Available at: <https://www.statista.com/statistics/1127496/largest-cities-in-south-africa/> [Accessed 12 August 2021].

Rowe, S.D. 2019. Voice assistants are changing shopping--Are you ready? Speech Technology Magazine, 24(2), 9. [Online]. Available at:

TransUnion. 2020. Gen Z Consumers Start to Shape South African Credit Market as They Become Increasingly Credit Active , 12 February 2020. [Online]. Available at: <https://newsroom.transunion.co.za/gen-z-consumers-start-to-shape-south-african-credit-market-as-they-become-increasingly-credit-active/> [Accessed 10 June 2021].

Turner, A., 2015. Generation Z: Technology and social interest. *The journal of individual Psychology*, 71(2), pp.103-113.

Whang, C., 2018. Voice Shopping: The Effect of the Consumer-Voice Assistant Parasocial Relationship on the Consumer's Perception and Decision Making.

7 ANNEXURES

7.1 Annexure A

Initial interview question structure

1. How do you feel about online shopping?
2. How often do you purchase products online?
3. Have you used a voice assistant before?
4. What type of voice assistant(s) have you used before?
5. Do you own a smart speaker?
 - 4.1 If yes which one and how do you use it?
 - 4.2 If yes, what was the reason for which you bought it?
6. What has your experience been like when using a voice assistant?
7. For what reasons have you used a voice assistant before?
8. Have you ever used a voice assistant to search for a product?
9. When using a voice assistant, are your requests more often fulfilled or not?
10. How has this impacted your impression of voice assistants?
11. Have you ever considered using a voice assistant to buy a product?
12. If you could purchase products by requesting it via your voice to a voice assistant or smart speaker, how would you feel about shopping this way?
13. How do you believe voice assistants could assist your shopping experience?
14. How do you believe voice assistants could impact your journey to search for information about new products?

7.2 ANNEXURE B: FINAL RESEARCH REPORT SUMMARY DOCUMENT

Research Purpose/Objective	Primary Research Question	Research Rationale	Seminal Authors/Sources	Literature Review – Conceptual Framework	Paradigm	Approach	Data Collection Method(s)	Ethics	Anticipated Findings	References
The objective of this study is to understand how South African Generation-Z consumers perceive voice shopping to inform brands about Voice shopping as a new channel to invest in.	How will voice shopping be adopted among South African Generation-Z consumers?	Voice shopping has been implemented globally but there is little to no research conducted on voice shopping in South Africa. As it is a growing trend, South African brand managers need to investigate voice commerce as a new channel to reach consumers of tomorrow.	1. Ajzen, 1991.	Theme 1: Voice assistants Theme 2: Voice shopping through and perceptions of voice assistants Theme 3: The Voice Revolution	Paradigm Interpretivism Epistemology This study will aim to understand the personal context and perceptions of Generation-Z consumers in South Africa towards voice shopping.	Qualitative Population Parameters Population parameters: 1. Generation-Z (born 1997-2010) 2. South African 3. Daily and ease of access to Wi-Fi/Internet.	Individual interviews	It will be ensured that all participants are over the age of 18. Each respondent will be informed of the nature and objectives of the study and will be required to sign a consent form. Each participant will be required to sign an audio recording consent form to permit the recording of their interview. The data collected from each interview will remain confidential and will not reveal the identity of any respondents. Interviewees will be made to feel comfortable and will not be forced to discuss emotional experiences with which they are not comfortable sharing.	It is expected to find that Generation-Z consumers have a positive perception towards voice shopping and would be receptive to using voice assistants for shopping purposes.	Agarwal, R. and Prasad, J., 1997. "The role of innovation characteristics and perceived voluntariness in the acceptance of information technologies. Decision sciences, 28(3), pp.557-582. Ajzen, I., "The theory of planned behaviour." Organizational Behaviour and Human Decision Processes 50 (1991): 179-211. Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, 13, 319-10.2307/249008
Research Problem	Secondary Questions/Hypotheses/Objectives	Key Concepts	Key Theories	Theme 3: The Voice Revolution Theme 4: Generation Z Consumers Theme 5: Implications on brand building	Ontology This study will use focus groups to focus on personal experiences and interpretations of different Generation Z consumers and their interactions with voice assistants.	Sampling Non-probability Sampling method Purposive sampling	Data Analysis Method(s) Unit of Analysis Individuals	Limitations Data Analysis Method(s) Content analysis using line-by-line, thematic and axial coding	Anticipated Contribution	Davis, F.D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Massachusetts, United States: Sloan School of Management, Massachusetts Institute of Technology. Dean, B. A. (2018). The interpretivist and the learner. International Journal of Doctoral Studies, 13, 1-8. https://doi.org/10.28945/3936 Elo, S. and H. Kingäs. "The qualitative content analysis process." Journal of advanced nursing 62 1 (2008): 107-15. Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behaviour: An introduction to theory and research. Reading, MA: Addison Wesley.
There is limited research on voice marketing and South African Gen-Z consumer perceptions of it in South Africa.	1. What are the current perceptions of South African generation-Z consumers towards voice shopping? 2. How do South African Generation-Z consumers currently use voice assistants? 3. How do South African Generation-Z consumers believe voice assistants could be useful for shopping?	1. Voice shopping 2. Generation Z 3. Voice assistants 4. Voice Revolution 5. Digital Native 6. Smart 7. Artificial Intelligence	Hassenzahl's Model of User Experience (2010) McKinsey's Model of the Circular Consumer Decision Making Journey (2009).							

7.3 Annexure J

CONSENT FORM

Explanatory information sheet and consent form for participants
To whom it may concern,
My name is Keosha Singh and I am a student at Vega School Durban. I am currently conducting research under the supervision of Simon Grainger about the adoption of voice shopping amongst Generation Z consumers in South Africa. I hope that this research will enhance our understanding of the current landscape of voice shopping in the country and how it may evolve in the next decade. 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 have the characteristics of the type of consumer relevant to my study. If you decide to participate in this research, I would like to arrange an interview with you in which I will ask questions to gain an understanding of your perspective regarding voice shopping and voice assistants. 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 perspective on voice shopping. 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 BCom Honours in Strategic Brand Management. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

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

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

My contact details are as follows:

Keosha Singh

[REDACTED]

The contact details of my supervisor are as follows:

Simon Grainger

[REDACTED]



Participant or respondent consent

I, _____, agree to participate in the research conducted by Keosha Singh about the adoption of voice shopping amongst Generation Z consumers in South Africa.

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

7.4 ANNEXURE K

CONSENT FORM FOR AUDIO OR VIDEO RECORDING	
Consent form for participants	
I, _____, agree to allow Keosha Singh to audio record my interviews as part of the research about the adoption of voice shopping amongst Generation Z consumers in South Africa. 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

7.5 ANNEXURE X



Vega Ethics checklist: RESE8419/p/w

Student Details												
Title	Prof	☐	Dr	☐	Ms	☒	Mrs	☐	Mr	☐	Mx	☐
First name(s)	Keosha											
Last name(s)	Singh											
Title of study	Forecasting a Voice Revolution in South Africa: the Adoption of Voice Shopping Amongst Generation Z Consumers.											
Qualification	BCom Honours in Strategic Brand Management											

Supervisor Details												
Title	Prof	☐	Dr	☐	Ms	☐	Mrs	☒	Mr	☒	Mx	☐
First and last names	Simon Grainger											

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	☐						
	Functionalism	☐	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)		☐	Click or tap here to enter text.								
Brief explanation of the population and number of participants/items	9 Generation Z participants aged between 18-24											
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	☒
	Audio-visual consent form (if applicable)	☒

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	
9 July 2021	
Co-supervisor/Campus ethics panel member signature	
2021/09/07	

7.6 Annexure Z



Date: 8 July 2021

Student name: Keosha Singh

Student number: [REDACTED]

Campus: Vega Durban

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.

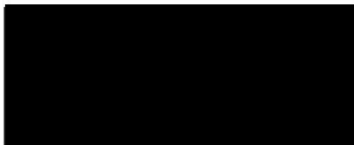
3. Photographs of human subjects may only be taken if relevant to the research, informed consent was obtained, and even with informed consent, the photographs may not be published on any online platforms.
4. The researcher is responsible for supplying and utilising his/her own research resources, such 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: **Simon Grainger**

Signature:



Campus Postgraduate Coordinator (CPC) name: **Carolanda du Toit**



Signature:

9 July 2021