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Green brands purchasing decisions among varying income groups in South Africa

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Green brands purchasing decisions among varying income groups in South Africa

A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in Strategic Marketing

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Date November 2020

DECLARATION

I, Kirana Ramsunder, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in Strategic Marketing at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: Kirana Ramsunder Signature: 

Signed at Greenstone, Johannesburg, on the 13th day of February 2021.

AKNOWLEDGEMENTS & DEDICATIONS

"An ounce of practise is worth more than tons of preaching" – Mahatma Gandhi

All my humble appreciation goes to God, for the blessings, lessons, and strength in perseverance to pursue this research goal.

To my supervisor, Dr Thomas Anning Dorson, who went above and beyond to help me on my journey and gave me a platform to showcase my passion for green sustainability.

A heartfelt THANK YOU to Dr Amelia Richards and Siphilisiwe Dlamini from the TGI Ask Afrika Group, for the ongoing consultation, data analysis, advice and patience throughout this research process.

I also wish to thank Kelly Widdop for helping to push my research goals and for ongoing career mentoring.

To my parents, sister, brother and most notably my partner Mr R. Harilal for emotional support, and believing in me with everything I do. I am because you are!

Aum Shanti.

ABSTRACT

Increasing consumer demand for products and services has put increasing pressure on the limited environmental resources, leading to the global growth of green products. In South Africa the research area of green consumer choices is new territory, with limited studies of scale currently available. The South African consumer is unique and whilst a few similar studies have been conducted in other emerging market countries, the academic body of research of scale in South Africa on green consumerism is sparse.

Considering that consumption is impacting climate change and contributing to environmental degradation, finding sustainable solutions through daily consumption decisions is important. This study examined the impact of life values on willingness to purchase green products. It also tested the moderating effects of product categories, price of green products, brand loyalty and socio-economic level in the relationship between life values and willingness to purchase green products.

Secondary quantitative data was used via the TGI Ask Afrika group to generate the results of this study with approximately 23346 datapoints and the analysis method of correspondence maps and cross tabulations. The five key hypothesis developed yielded positive relationships. TGI data presents consumer profiles in terms of consumer life value statements whereby psychographic and demographic data and key lifestyle statements are combined.

The key contributions of this study establish a relationship with green food choices and brand loyalty, income groups and the overarching consumer life values. These findings

further the body of South African research and contribute to the green marketing territory, in alignment with similar studies conducted in other emerging markets.

KEYWORDS

Green Purchasing Decision, Willingness to purchase, Willingness to pay more, Green Product, Socio-Economic levels, Household income, Life values

Green brands purchasing decisions among varying income groups in South Africa

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LIST OF ACRONYMS

FMCG: Fast Moving Consumer Goods

HH: Household

SEL: Socio-Economic Level

TGI: Target Group Index

WTP: Willingnes to Purchase

WTPM: Willingness to Pay More

1. INTRODUCTION

1.1 CONTEXT AND BACKGROUND OF THE STUDY

The United Nations Secretary General's speech on climate change highlights a stark and grim reality that we face globally. He said;

> Climate change is the most defining crisis of our time. If we do not change course, we will not be able to avoid disastrous consequences. The melting glaciers and once permanent sea ice in the Greenland is for the first time braking up; our oceans are becoming more acidic and threatening the food sources that they sustain; wildfires are lasting longer and spreading further. Co2 levels continue to spike making crops less nutritious, electricity and water sources dwindle. As climate change intensifies, we will find it harder to feed ourselves (Guterres, 2018).

The impact of climate change, scarce resources and the increase in the population depending on the earths dwindling resources is a constant challenge for the global society at large. Ignoring one of the most important global trends of our time, would be an oversight for businesses who look to ensure the longevity of their companies, brands and market position. These factors have lead to environmental sustainability shaping business practices, and the relatively new area of green marketing.

The importance of research studying environmental impacts on brand usage has become critical due to the depleting nature of our natural resources and an environment that is increasingly polluted (Kalburan & Hasiloglu, 2018). Consumption is impacting climate

change, hence, finding sustainable solutions through consumption and daily living is now of upmost importance (Wei, Ang, & Jancenelle, 2018). Nowadays, consumers are more informed about their impact on the environment, leading to the movement towards product offerings that are green (Wei, et al., 2018). Some consumers are becoming more ethical in their purchase of goods and services.

One key factor that appears to be shaping the discussion on ethical or green consumption is income levels and the assumption that green brands are considered more expensive (Mamum, Mahamd, Yaacob & Mohiuddin, 2018). Within the South African landscape, the middle-and lower-income households face intense financial pressure and their purchasing choices are constrained, thereby making the purchasing decision process more complex (Hattingh, Magnus, & Ramlakan, 2016). For the South African consumer with a constrained income it will be pertinent to investigate how green brands fit into this consideration process. Conversely, consumers in other markets where income levels are considered relatively high have been found to be willing to pay a premium for green products (Wei et al, 2018).

The purpose of this study is to investigate consumers' willingness to purchase green products in the South African context. The study further examines the impact life values of individual consumers, may have on green consumption. Finally, it explains the extent to which the relationship between life values and green purchase is moderated by product category and income levels of consumers.

1.2 PROBLEM STATEMENT

Consumers are aware of the impact of products they consume including the disposal of the product after use and packaging disposal, impact on animals through testing, sourcing of the ingredients, impact on their health, and the other resources needed to use the product (Peattie, 2001, White, Habib, & Hardisty, 2019). With this increased awareness, shoppers are making informed choices based on their experiences and the information they are receiving on brands during the product decision making process, with a plethora of internal and external factors impacting the decision, more so for high involvement categories (Hawkins & Mothersbaugh, 2016).

The South African consumer has had the direct impact of environmental factors on their daily lives, specifically relating to the shortage of water leading to water restrictions, and the electricity crisis leading to load-shedding power outages, making them more informed of the impact of actions on the scarce resources they depend upon. Within the landscape of a growing middle class, many consumers are facing budget constraints due to rising costs, rising levels of indebtedness, lack of savings and dependence on credit (SALGA ORG, 2016). Hence, exploring the impact of a green food choices in relation to household financial constraints is an untapped area. Green product offerings are increasing on the markets and understanding their appeal to the middle-class consumer in the context of their life values, when purchasing is an important step which this research aspires to delve into especially with respect to price considerations.

Whilst research has been conducted on green marketing in South Africa these studies mostly focus on the consumer purchasing decision process of green brands. Relating green products as a motivator to choose one brand over another by different income

groups is a new area that this study delves into specifically by looking at socio economic levels and household income. In order for a green product selection to be made ideally at every product decision, insights are needed into the decision process. The aim of the study is to explore these variables in the South African context.

1.3 RESEARCH AIM AND OBJECTIVES

The main aim of this research is to explore how life values of South African consumers explain their green purchase disposition and the extent to which product category and consumer economic variables shape value-green purchase relationship.

The following specific objectives are put forward to achieve the main aim;

i. To examine the relationship between individual consumer's life values and their willingness to purchase green products
ii. To assess the moderation effect of product categories in the relationship between life values and wiliness to purchase green products
iii. To examine price as a moderating factor impacting willingness to purchase green products
iv. To evaluate the moderation effect of brand loyalty and preferred brand choice in the relationship between life values and willingness to purchase green products
v. To assess socio-economic levels as a moderating factor impacting a consumer's willingness to purchase green products

1.4 RESEARCH QUESTIONS

Two broad questions are of interest in this study. They are;

i. Is green consumption impacted by a person's life values in the South African Context?

ii. To what extent is green consumption and life value relationships explained by factors such as pricing, intent to choose and pay for a green food, brand loyalty and socio-economic income.

1.5 CONTRIBUTION OF THE STUDY

This study aims to add to scholarly research by exploring green food as an influencer in the purchasing decision in South Africa, as well as to determine if these options come at a perceived price premium, and if so would the consumer be willing to pay for it, and this study adds to scholarly research by applying the global willingness to pay more indicator to the South African market.

Further academic contributions in the area of green marketing specifically related to pricing and willingness to pay more have been sparse in similar emerging markets, with India, Indonesia and Thailand noting an association between a green brand and a sense of consumers' willingness to pay more (Singh & Pandey, 2018; Setyawanan, Noermijati, Sunaryo & Aishja, 2018; Maichum, Parichatnon & Peng, 2016). Whilst research has been conducted on green marketing in South Africa by Govender & Govender (2016) and Dubihlela & Ngxukumeshe (2016), these studies mostly focus on the consumer purchasing decision process of green brands. The South African market is predominantly a middle-class economy and the unique South African economic landscape is different from other emerging economies as consumers have a tendency to behave differently in times of constrained disposable income (SALGA ORG, 2016).

The existing economic and socio economic data on South Africa consumers does not explicitly link the growing need for green food to the real dilemma of the associated pricing and where consumers will be willing to pay more for a green food, in light of the prevalent household income pressures (TGI data, 2019; SALGA ORG, 2016). The further implications for additions to academic research is that sustainability is an ever pressing environmental issue, impacting resources, and ultimately the way in which consumers consume food, and scholarly research in this area is vastly untapped, which can contribute to the body of knowledge and assist with further research topics in this area.

This study has practical implications for the FMCG industry as climate change and environmental social responsibility are critical to the sustainability of the planet, hence the obligation for providing mass green food options is paramount to enabling the cash strapped consumer to make sustainable purchasing choices. The theoretical contributions to be made with this research will include adding to the scholarly research in the area of green marketing in the food industry but especially to the middle-income consumer. The price factor of green food as a variable in purchasing decisions to the middle-income household with limited disposable income will have practical applications to industry in that it can inform decisions on pricing strategy potentially for new launches with green appeal.

1.6 DELIMITATIONS

This research will look at the set of regular purchased food categories that are deemed common across household groups, and other green product categories will not be included in this study. TGI data (2019) has been used to delve into the green food categories and

brands in the South African market, corroborating a recent study undertaken by Kroll (2016) are bread, oil, sugar, confectioneries, non-alcoholic beverages predominantly. Product examples will be added from each category for the consumers' consideration. The products chosen will be selected by taking the most popular brands stocked in most retailers informed by TGI (2019) data and the most popular brands in the popular food categories.

Household income has been identified as an intervening variable for the study and socio-economic levels will be used as a proxy indicator for household income from TGI (2019). This study excludes impoverished consumers living in either informal settlements or in rural abodes, due to lack of access to these consumers by the researcher at this stage.

1.7 STRUCTURE OF THE STUDY

This study is presented within five chapters. Chapter one provides the backdrop and frames the research with context about the emergence of green product offerings, objectives, and research problems to be addressed. The role of the research and contributions are also detailed in Chapter one.

Chapter two presents in detail the theory related to green consumerism and various consumer behavior theories. Literature related to consumer life stages are explored as rationale into consumer life values. Green brand motivators and intention, household income and affordability aspects relating to green food current literature is presented. The concept of willingness to pay more for green food is introduced and literature presented, predominantly from other emerging markets. Each of these key literature subsegments

contributes to the research hypothesis development and the final hypothesis are presented in Chapter two together with the hypothesis flow diagram that will be tested.

Chapter three is the methodology chapter, detailing the research process for data collection and data analysis specifying the quantitative methods used in correspondence analysis. Chapter four follows suit presenting the research results with an overview of results as well as presentation of each hypothesis and the findings thereof. Chapter 5 is the final chapter delving into further discussions on the results presented and deeper insight into the results achieved with implications, areas for future research, and the closure of the research study.

1.8 DEFINITION OF TERMS

Green consumers are consumers who have a tendency to make green choices and have a propensity to be more environmentally conscious and have a utopian outlook (Haws, Winterich, & Naylor, 2014). The TGI group has ranked the level of green consumers in one of five groups namely, engaged greens, green supporters, neutral green, green cynics and green rejectors (TGI – Ask Afrika, n.d.).

Green products are defined, for the purposes of this research, as any product offering that has been produced in an environmentally conscious manner, reduces the environmental impact during product use or disposal, makes an eco-friendly claim or promise, has a material social outreach initiative intrinsic to the product offering or offers a combination of these aspects forming part of the product offering aspect (Haws, Winterich, & Naylor, 2014; Peattie, 2001).

Income groups are later defined in Table 1 and this research will refer to Groups 1-2 as low- income earners, groups 3-5 as middle-income earners, and groups 6-8 affluent earners (SALGA ORG, 2016).

Levels of green consumerism are classified along a Likert scale of the TGI dataset and rank from Engaged Green , Green Supporters, Green Neutral, Green Cynics and Green Rejectors (TGI – Ask Afrika, n.d.). For the purposes of these results we will define pro or positive greens comprising of Engaged Green and Green Supporters and negative greens comprising of the Green Cynics and Green Rejector groups.

Socio economic levels (SEL) are a classification of a consumer households status with the highest level 1 through to the lowest level 10 and is influenced by a combination of thirteen variables including household possessions, lifestyle, education levels etc as per Appendix B (TGI – Ask Afrika, n.d.).

The purchasing decision process is defined as the consideration between product choices that the consumer undertakes when a food need arises, taking price perception based on the consumers' willingness to purchase the product, and their household income group i.e. high, medium or low.

Willingness to pay more (WTPM) is a concept that has been used in previous research to indicate a consumer's likelihood to pay a premium for green products; this study follows suite and requires consumers to rate themselves on this measure (Singh & Pandey, 2018; Wei, Ang, & Jancenelle, 2018).

1.9 ASSUMPTIONS

Green strategy and marketing are vast theory areas pertaining to many sectors of business, the environmental ecosystems, environmental law, governments etc. However, for the purposes of this study, a magnifying glass is held to the area that pertains to green food particularly within the FMCG environment only, understanding that there are other aspects that may lie outside of this research.

Secondly this research makes reference to income groupings, and whilst this classification might change over time, for the purposes of this paper we have taken a combined view of these groupings from the SALGA Organization (2016) income groupings classification, and the TGI socio-economic level (SEL) classification, depicted in Appendix 2.

The concept of consumer life values is also a broad area, and whilst this is discussed at a topline level overall and a focus on the TGI data (2019) perspective on the life stage model, which focuses on 9 core household classifications. For the purposes of this study and especially the hypothesis development and phrasing, the TGI 9 life stages are used as a proxy for life values.

This research assumes that the consumer is truthful in their responses when conducting the survey as the TGI data (2019) depicts that consumers are sometimes reluctant to share full salary details.

CHAPTER 2. LITERATURE REVIEW

2.1 GREEN MARKETING INTRODUCTION

The evolution of green marketing over the years has gained momentum driven by increased environmental pressure urging both producers of goods and services and consumers to take note and change behaviour. Over the last 20 years, green marketing evolved from ecological issues being viewed as a business constraint, to recent times encompassing green marketing as a holistic view of sustainable production measures which offer green solutions to consumers, and a source of competitive advantage for the company (Peattie, 2001; White, Habib, & Hardisty, 2019). There are successful examples of green products in South Africa, like Unilever's sustainable living plan with 26 brands meeting sustainability targets; and the Coca-Cola company introducing Plant-Bottle to use plant based PET recyclable plastics, which aim to improve the environmental impact (Unilever Sustainable Living, n.d; 'Coca Cola Sustainability: Plant Bottle packaging', n.d). Even though the rise of green products are evident over the years, clarity on consumer purchasing decisions within the green marketing space is still a relatively new area to be explored in South Africa.

A green brand is one that has been manufactured in a sustainable way, conscious of the resources used, production processes, are considered safe to use, purchase and dispose of (Maichum, Parichatnon, & Peng, 2016). A large part of green marketing is ensuring brands communicate those green benefits to the consumer. The green marketing mix comprises the product that has been manufactured in an environmentally conscious way, the packaging which offers green benefits, the price of the green product which would be compared to the traditional brand choice, where to find these green products

and the promotion of green products by companies (Govender & Govender, 2016; Dubihlela & Ngxukumeshe, 2016).

Company strategies to improve awareness of green food have gained scale over the years with Woolworths retailers using technology to drive recycle material usage in foods packaging, showcasing recycling claims on their products and post usage recycling instructions with the aim to have 100% recyclable packaging by 2022 ('Woolworths Holding Limited Financial results', 2019). Communicating green messaging on packaging to create consumer awareness of the green initiatives is the intent of the manufacturer ,however the effectiveness of the green messaging is predicated on the consumer trusting, believing and buying into the claim to a degree that it motivates eating behavior towards that product (Muposhi & Dhurup, 2017). Woolworths retailer is a great example as they have brand equity in being a sustainable organization, with many 'green' initiatives, which adds credibility to the green messaging on packaging.

Eco labels have been deemed effective in communicating green messaging benefits however in U.S markets comparisons with negative labels highlighting the harmful effects of non green products would be more effective (White, Habib, & Hardisty, 2019). Interestingly comparative advertising is not permissible in the South African market, and conversely looking at current food brand labels the green messaging is benefit focussed rather than showcasing the negative impact on the environment, which might be a purchasing deterrent and create negative brand perceptions. Hence the local eco green messaging related to brands have been inherently positive focusing on the benefit to society.

Green-washing is considered to be misleading information about green claims that may be misleading to the consumer, omit the full green benefit, cannot be certified or are vague, false or questionable (De Jong, Harkink, & Barth, 2018; White, Habib, & Hardisty, 2019). Using fake or questionable green claims causes consumers to mistrust the validity of communication they are exposed to, ultimately resulting in poor company perceptions, reduced financial performance and consumer scepticism (De Jong et al, 2018). The responsibility for companies making valid green claims and not indulging in green washing cannot be overstated, in an environment where the ecosystem depends on consumer change towards greener practises. Local legislation can aid in curbing greenwashing practices. The Johannesburg Stock Exchange has recognised the long term sustainability of businesses that have a green focus and have implemented the reporting of green activity and have noted a marked improvement from South African companies in their reporting on environmental and sustainable efforts as part of annual financial reports (Johannesburg Stock Exchange, n.d.). However, there are necessary improvements required for South African companies to be on the same level as global green initiatives with green offerings, and to comply with global environmental mandates, namely, United Nations Global Impact regulations (Struwig & Van Rensburg, 2016). Listed companies in South Africa are not subject to reporting environmental goal as part of their annual financial statements, however for non-listed companies who do not publish annual results this provides a grey area in committing to the green objective and tracking thereof, all of which contribute to the green food options that are available to the South African consumer (Struwig & Van Rensburg, 2016).

The theory of green marketing and the importance to the South African green consumer is a vast area, and in the next sections we will explore the pertinent aspects of green marketing strategy as related to this study, and then delve into the South African income landscape, both of which set the backdrop for the research. The consumer decision process is modelled from consumer behaviour theories shaping choices and behaviour namely the Engel-Kollat-Blackwell model adapted by Prasad & Jha (2014), the theory of planned behaviour as well as the recently popular willingness to pay more concept of consumer behaviour. Further to the background the research is organised in the key areas as per Appendix Figure 1, and then proceeds to state hypothesis from them in Chapter 2.

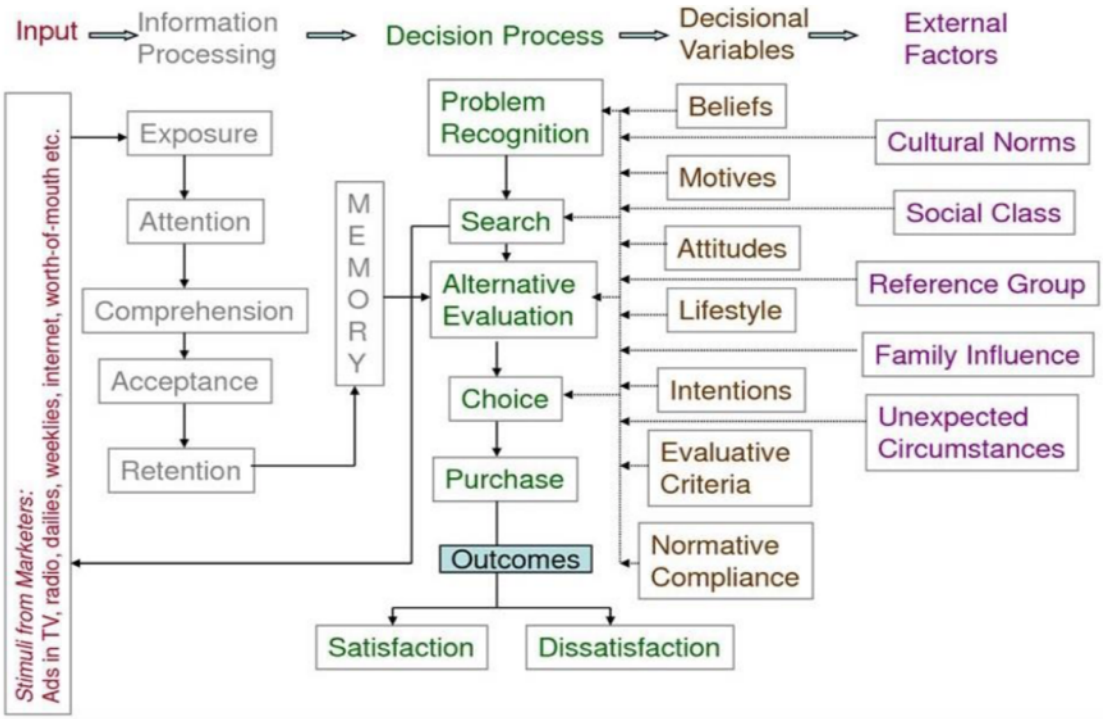
2.2. GREEN CONSUMER BEHAVIOUR

The green consumer is one who is environmentally conscious and makes a concerted effort to choose, consume and dispose of products in a way that is safe for the environment, and one who has a tendency to 'express their environmental protection through ones purchases and consumption behaviours' (Haws, Winterich, & Naylor, 2014, p337). The green consumer is one who is aware of environmental issues, and who is open to making green purchases as a contribution to environmental sustainability (Maichum, Parichatnon, & Peng, 2016). The typical profile of the green consumer falls amongst a wide range of socio-demographics, however personality values can enrich the green consumer profile as factors like environmental consciousness; goodwill; societal pressures; market competition impact the level of green purchasing (Jain & Metha, 2016).

The classical theory of Maslow's hierarchy of needs has shaped the social sciences for decades as a basis for depicting consumer behaviour related to many theories including human motivations, choices and consumerism (Maslow, 1943). However in applying Maslow's hierarchy to green consumption behaviour, green purchases can be considered as adding to psychological and safety needs in that they contribute to the environment and health, and can contribute to a sense of belonging to a wider community, thereby increasing self-esteem and self-actualisation (Jaju, 2016; Maslow, 1943).

Relating the consumer decision process for the green consumer, we apply the scenario of a consumer experiencing a need for a food product and then considering a green food to the Engel-Kollat-Blackwell (1995) model of consumer behaviour which was later adapted by Prasad & Jha (2014) in Figure 1, and describe key points of consideration as below.

Figure 1: Engel Kollat-Blackwell model of consumer behaviour (1995) and sourced from Prasad & Jha (2014).



In the information input and processing stages are the phases where all the stimuli that the consumer is exposed from marketeers on television, digital sources, radio, instore environment communication, as well as informal channels like word of mouth, blogs and the like - these all play a part in the consumer forming an opinion about the product (Prasad & Jha, 2014). In the central decision-making process phase, the assumption is that the consumer has a need for a food product, and is now searching for alternatives and evaluating choices, though for a routine purchase this process might be shortened (Prasad & Jha, 2014).

The green product decision making process in figure 1 would depend on the type of product being purchased, with nominal decisions being made for repeat purchases, limited decision making being made for a food purchase that is not often made like a jello product that has not been purchased in a while but the consumer was disrupted

instore by a gelatine free message that encouraged purchase, and thirdly an extended decision making process for more involved purchases that could be of a higher monetary value or a purchase that is an emotional purchase, like a vacation (Hawkins & Mothersbaugh, 2016). The decision process for green products have also been reported to generate negative feelings in that the eco message is portrayed in a way that entices fear and the stark reality of the environment which can be associated with the brand and lead to the consumers' negative feelings and either inaction or aversion regarding the purchase choice (White, Habib, & Hardisty, 2019). Conversely it has been reported that choosing sustainable green brands are associated with a warm glow feeling associated with making a socially acceptable choice and are related to a motivational feeling related to the green product choice (White, Habib, & Hardisty, 2019).

Applying the consumer influences concept to the area of green marketing is significant in that behaviour can be predicted from gaining insights. Green marketing can be both functional or emotional, providing feelings of wellbeing as well as a sense of self-expression, which are gained from effective communication of the brand attributes (Kumar & Kushwaha, 2017).

Traditional purchase decision making processes begin with a problem or need recognition, searching for internal and external information, evaluating alternatives based on attributes offered, both simple and complex, leading to a purchase and then post-purchase behaviour and evaluation (Hawkins & Mothersbaugh, 2016). This decision-making process becomes more involved for more complex, high involvement categories, for example the purchase of a car as opposed to food items which generally fall more into low involvement purchases. This is a simplistic manner of thinking about

the product purchasing decision but before needs arise and decisions are made, the consumer them self is exposed to a multitude of stimuli, has been shaped by many ingrained attitudes and beliefs, and is influenced by many social and cultural eternal factors (Prasad & Jha, 2014).

Looking at the rationale behind green purchasing decisions the theory of reasoned action takes into consideration a consumers non routine purchases, and in the case of green products examines the willingness to purchase and willing to adopt to a green choice, for example exploring new recycling behaviours, evaluating solar energy sources or the purchase process of buying an eco-car (Paul, Modi & Patel, 2016). This is significant as we have established that consumers that are more informed on environmental issues, and have adopted green practises would be more likely and open to making a green food purchase choice. The theory of reasoned action goes so far as to prove that consumers may be aware and open to making a green purchase, however does not delve into other reasons for not making the green purchase choice, including green product availability and income levels, which the theory of planned behaviour is able to account for (Paul, Modi & Patel, 2016).

The theory of planned behaviour is commonly used to describe the antecedents related to purchase intention, and for the purposes of green brand purchase choices this is particularly relevant (Maichum, Parichatnon, & Peng, 2016). Expanding on the theory of planned behaviour are the factors for positive green attitudes, subjective social norms, environmental concern and largely behavioural control, which all positively contribute to green purchase intent (Paul, Modi & Patel, 2016; Maichum, Parichatnon, & Peng, 2016).

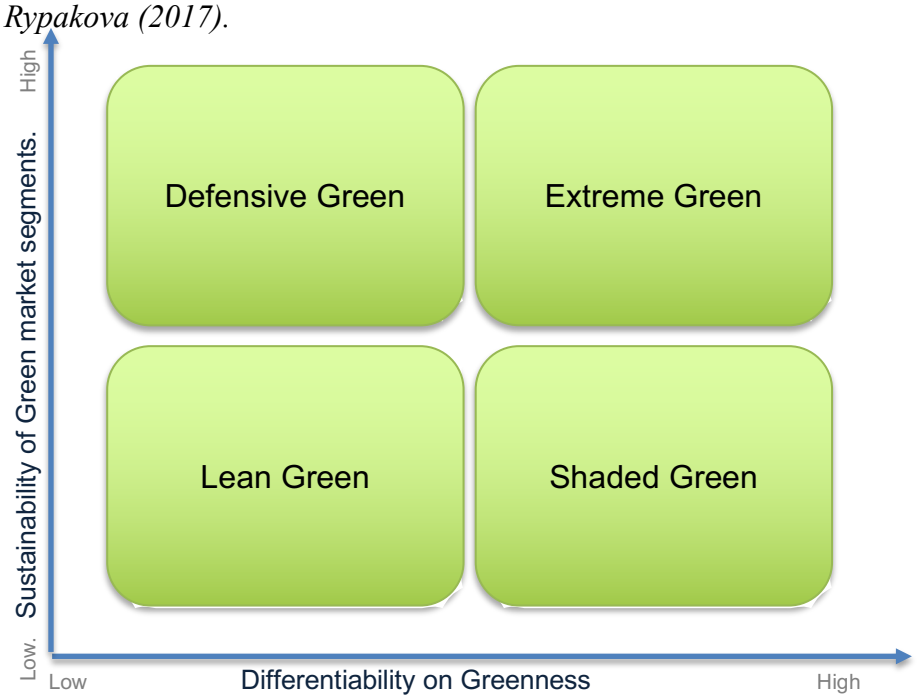
Studies have shown that consumers tend to be more environmentally aware and have a greater propensity to purchase green products in more developed countries like the US and UK, versus developing countries like China, India, Thailand which have recently gained interest in green products (Maichum, Parichatnon, & Peng, 2016). South Africa as a developing country can draw parallels from other developing and emerging markets in terms of green brands and environmental awareness gaining momentum, as well as from a market demand product supply perspective for companies to consider when extending their offerings.

Consumers moving to modern trade retailers rather than the informal smaller stores due to the assumption is that consumers can gain a wider range of products and lower price offerings (Hattingh, Magnus, & Ramlakan, 2016). The South African consumer has a multitude of formal and informal stores to visit and product choices will largely depend on the product ranges that are stocked in those different store profiles.

Green companies/brands looking to implement a green strategy can implement one of four strategies based on their differentiation level and sustainability of the green segment as noted in Figure 2 (Moravcikova, Krizanova, Kliestikova, & Rypakova, 2017). Food brands globally falling into the lean green category are concerned with being responsible to society but are not focussed on communicating those benefits those falling into the defensive green category use green marketing as a competitive edge; shaded green category brands use a long term strategy to provide a sustainable product solution that is profitable and creates a competitive edge, while brands falling into the extreme green quadrant offer new completely green product solutions and even create dedicated

distribution channels (Moravcikova, Krizanova, Kliestikova, & Rypakova, 2017). The four quadrants in Figure 2 depict a Lean Green product which has undifferentiated green benefits and low sustainability of the green segment, juxtaposed with the Extreme Green category that has differentiated green benefits and a highly sustainable green market segment.

Figure 2: Green market segments vs level of differentiability of green products. Source: Ginsberg & Bloom (2004) Adapted by Moravcikova, Krizanova, Kliestikova, & Rypakova (2017).



Taking a closer look at South African green initiatives Unilever has a strong ethos ingrained into their brands with the South African business committed to having their environmental footprint. The Unilever brand Dove's self-esteem project uplifting the girl child can be evaluated as Lean Green in figure 2 and Knorr cooking heat bags, which is sourced from local suppliers and reducing the energy taken to cook a meal for the family can be considered to fall into the Shaded Green category (Unilever Sustainable Living, n.d.). There are a few global examples of green brand successes like Toyota's award

winning green strategies interwoven into their business practices as evidenced with the Prius, Unilever's continued commitment to sustainability at multiple levels through the business process, and a local company The Beauty Factory, which has a completely green ethos from production, no animal testing, packaging and even incentivising customers with a recycling discount (Unilever Sustainable Living, n.d; 50 Shades Of Green, 2013).

2.3. GREEN LIFE VALUES IN RELATION TO WTP GREEN

The consumers values, attitudes and beliefs takes into consideration a consumer's perceived value of green consciousness importance impacts their attitudes towards broader environmental issues and green social benefits, which determine their green behaviour (Cheung & To, 2019). The green consumer's values, attitudes and beliefs highlights a gap between consumers strong green awareness and having a high sense of environmental concern juxtaposed with the comparatively lowered consumers purchase intent for a green product (Cheung & To, 2019). The aforementioned gap between favourable environmental attitudes which do not always lead to sustainable actions highlights a need to seek the barriers that are obstacles to bridge this gap (White, Habib, & Hardisty, 2019).

Consumer's that are more aware of the environmental footprint they leave behind and make more informed purchasing choices with respect to environmental impact of the product they choose (Kalburan & Hasiloglu, 2018; Maichum, Parichatnon, & Peng, 2016). Consumers that have a positive attitude towards green brands but are also informed about the green products price, quality, benefits and features have a propensity

to convert to the green brand, highlighting the need to communicate to the green brand in terms of solving the consumers total usage occasion need (Jaju, 2015; Maichum, Parichatnon, & Peng, 2016). Assuming that the green benefit from a brand is the brands point of differentiation, then the points of parity to other products in the same category like features, quality benefits etc will need to also be met in order for the green brand to be considered an alternative and the better green choice.

Consumer attitudes specifically relating to consumers pro-social attitudes contribute to the propensity for the green consumer to rank environmental protection highly in their purchase decisions and consumption behaviours, which in-turn shape their green consumption values (Do Paço, Shiel, & Alves, 2017). When consumers do purchase green products they can classify their purchases into one of four groups as identified in Figure 3 by the historical framework developed by Peattie which classifies these green purchases on a matrix (Peattie, 2001).

Figure 3: 'The Green Purchase Perception Matrix'. Sourced from Peattie (2001).

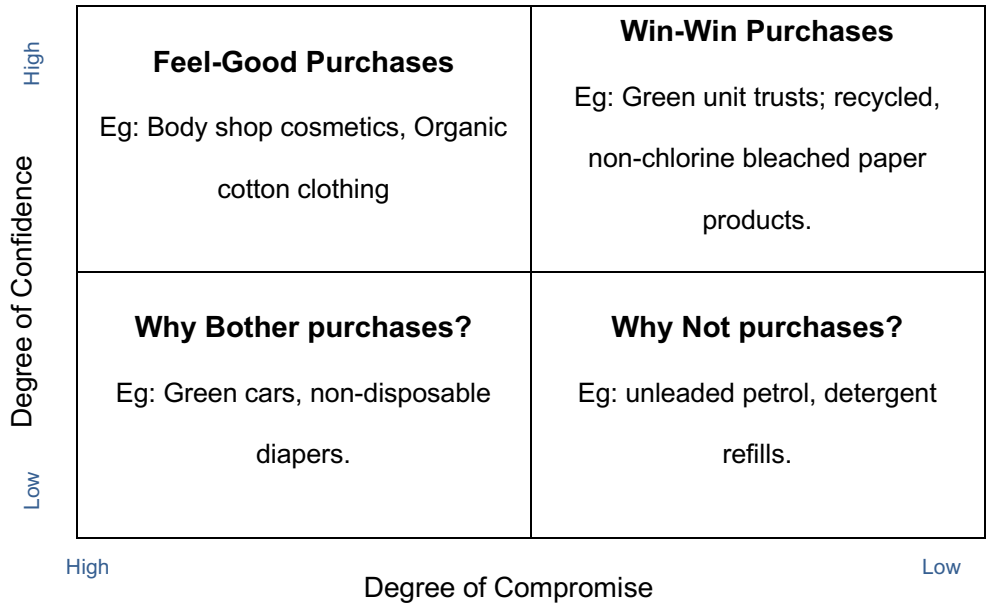
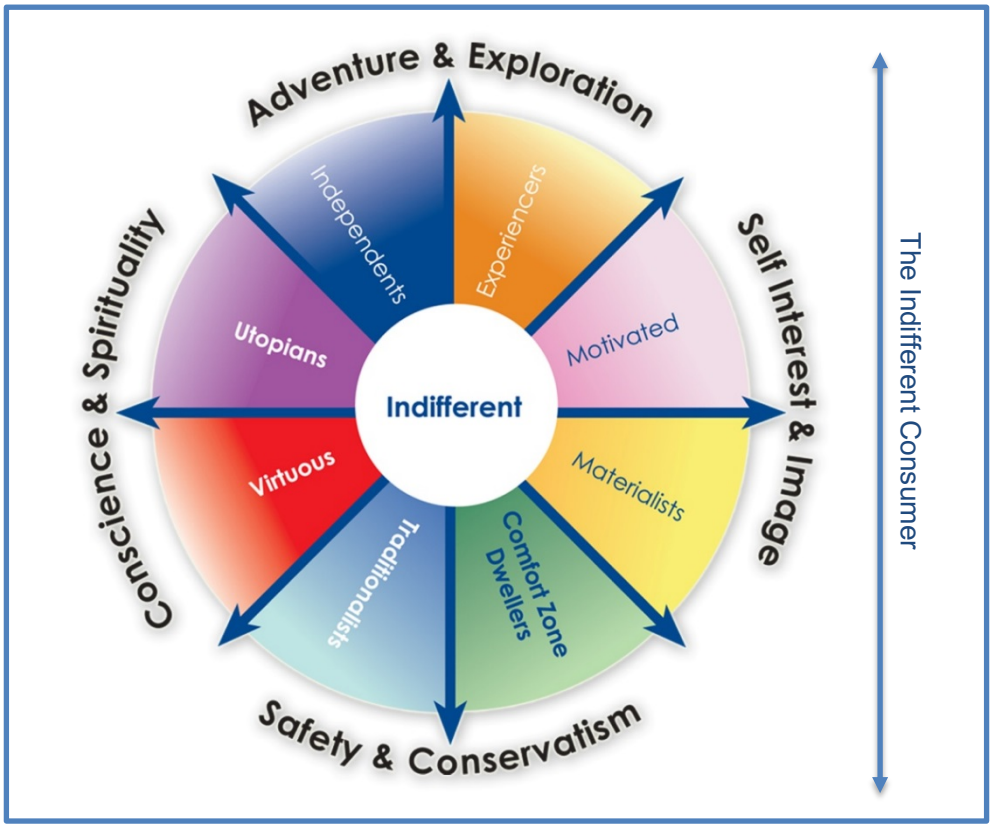


Figure 3 helps to identify if the purchase is considered a Win-Win in which the product offers clear green benefits and no compromises for the purchaser fare well in the market (Peattie, 2001). Feel good purchases offer the consumer a high degree of confidence in green benefits but ask for a high level of compromise on the consumers part like the Body Shops offerings which are highly green but are more expensive than similar brands (Peattie, 2001). Why bother purchases are those that demand a high level of compromise from the consumer on their needs but offer low green confidence are unlikely to fare well in the market place like electric cars (Peattie, 2001). Why not purchases offer the consumer benefits that they expect and a low level of benefit compromise whilst offering seemingly marginal green benefit confidence are an easy switch for consumers like unleaded petrol (Peattie, 2001).

2.3.1 GREEN LIFE VALUES & GREEN LIFE STAGES

A consumer's perspectives are shaped by their values on life. Taking a look into the value set of consumers that drive green purchasing the TGI Ask Afrika group classifies consumer life stages into nine segments which depict the consumers life values. For the purposes of this study consumer life stages are used as indicative of the life values that consumers have, that shape the hypothesis further. The TGI life values stages are based on the broad categories of adventure and exploration focused; self interest and image conscious; safety and conservatism and finally conscience and spirituality focused (TGI – Ask Afrika, n.d.). Figure 4 depicts the key eight life stage categories with the ninth being the indifferent group not on the scale. An explanation of each segment follows.

Figure 4: Life stage consumer categories Sourced from TGI – Ask Afrika (n.d.).



1. Independents: The independent consumer grouping tends to value adventure, challenges the status quo by not always following society's norms by 'rejecting wealth and status symbols', is creative, free-thinking and has a strong sense of self-belief (TGI – Ask Afrika, n.d.).
2. Experiencers: This group of consumers is adventurous, self focused interests and are externally image focused, expressive and have an affinity for novelty (TGI – Ask Afrika, n.d.).
3. Motivated: Achieving their self goals is important to motivated individuals who are known to put themselves and their image first and are ambitious (TGI – Ask Afrika, n.d.). Being open to change and characterised as an 'avid consumer' is typical of motivated individuals (TGI – Ask Afrika, n.d.).

4. Materialists: are involved with self goals and needs, but differing from the motivated consumers are more concerned with projecting a socially acceptable image of success and wealth as evidenced by their gravitation towards premium and status brands (TGI – Ask Afrika, n.d.).
5. Comfort-zone dwellers: risk averse, conservative, family and self oriented and generally old-fashioned values characterize this group who prioritize what others think of them (TGI – Ask Afrika, n.d.).
6. Traditionalists: traditionalists are also conservative however they are less self oriented and more patriotic valuing societies customs, in their religiously sedatory lives (TGI – Ask Afrika, n.d.).
7. Virtuous: the virtuous consumer is altruistic and concerned with duty and doing the right thing and god causes (TGI – Ask Afrika, n.d.). Based on the description of the virtuous consumer, the green consumer who prioritises green benefits could fall into this life stage group.
8. Utopian: The utopian consumer is even more philanthropic, idealistic and liberal than the virtuous group and tend to belong to environmental and conservation groups and conversely rejects materialism and unethical companies (TGI – Ask Afrika, n.d.). From the utopian description, the extremely green conscious consumer would fall into this group and display this life stages mindset in their decision making.
9. Indifferent: The indifferent group is the most difficult to predict as they are generally neutral on their beliefs and rarely agree with the norm in terms of general attitudes and beliefs (TGI – Ask Afrika, n.d.).

The 9 life stages presented above are important as a household with a utopian view or where the key shopper is a utopian and is predisposed to having an environmental focus, would theoretically have a different purchasing decision process than someone with a Comfort-zone dweller household who might tend to stick to product choices they have made in the past. Life stages therefore influence a consumer's attitudes, behaviors and general perceptions of the world (Prasad & Jha, 2014). It is safe to assume that these general attitudes would shape consumers outlook and impact their purchasing decisions.

Looking at other life values impacting purchase choices would be the dynamics of the household. Smaller households tend to have a higher propensity to purchase green organic food and coupled with the concern that larger families have with food scarcity, larger families with over five members per household tend to have less of a propensity to purchase green organic food than a traditional choice (Wekeza & Sibanda, 2019). Organic food can be used as an indicator of a green food choice, where a halo perception of organic food was observed as being tastier and healthier than they might actually be, and consumers were found to make the organic green purchase choice when observed shopping by their peers, than consumers that were not observed in the study by Kim, Lusk, and Brorsen (2018). This relates to the collectivism thinking that consumers predisposed to being green conscious are likely to make a green choice when shopping if they are observed by their peers. Buying high-priced organic food endorsed by high influencing celebrities and peers creating the perception that paying more for an organic product are linked to positive associations and feelings of being a good citizen (Kim et al, 2018).

2.3.2. WILLINGNESS TO PURCHASE [WTP] & WILLINGNESS TO PAY MORE [WTPM]

Consumers in India indicated a high willingness to pay for added value benefits, superior packaging, and the recyclability and reusability (Singh & Pandey, 2018). Eco concern driven by motivation and eco literacy leading to ability to make a change were identified drivers as an influencer of changing purchasing habits, with a high eco literacy and eco concern a precursor found in the consumers' willingness to pay more for a green product in Texas (Wei, Ang, & Jancenelle, 2018).

A recent study on millennials uncovered that rational and self oriented millennials had a propensity to buy green, and conversely the characteristic traits of collectivism and more emotional millennials did not corollate with green purchasing (Naderi & Van Steenburg, 2018). This fact is key as South Africa has a large, young population and reaching them with green messaging to convert to purchases is important. Furthermore Naderi & Van Steenburg (2018) affirm that the communication to millennials should stress the positive impact green brands have to them rather than focus on the benefit to society to enlist a positive green WTP. The question then arises on millennials WTPM for green brands if these green messages meet their needs and requirements and it will be a part of the research results to determine the age groupings related to the TGI (Ask Afrika, n.d.) life stages.

Merging the concepts presented in these sections of life stages and WTP green products we assume that the life stages of a consumer which shape how they perceive different

products will have a direct impact on their WTP green products. The thinking which informs the hypothesis in this study is that a consumer with a utopian life stage will have a different perception vs a consumer with a motivated or materialistic life stage. The different life stages have been shown to yield different perceptions of life and different product choices and extending this into green choices we assume that this has an impact on their choices. The concepts of life stages and WTP will be built into all of the hypothesis developments forward as a central theme

The discussion on consumer life stages well as the discussion on purchase intent and motivations relating to WTP green products bring us to the first hypothesis, stated as H1.

> H1: Life values of individuals will influence their willingness to purchase green products.

2.4. GREEN PRODUCT CATEGORIES, LIFE VALUES & WTP GREEN

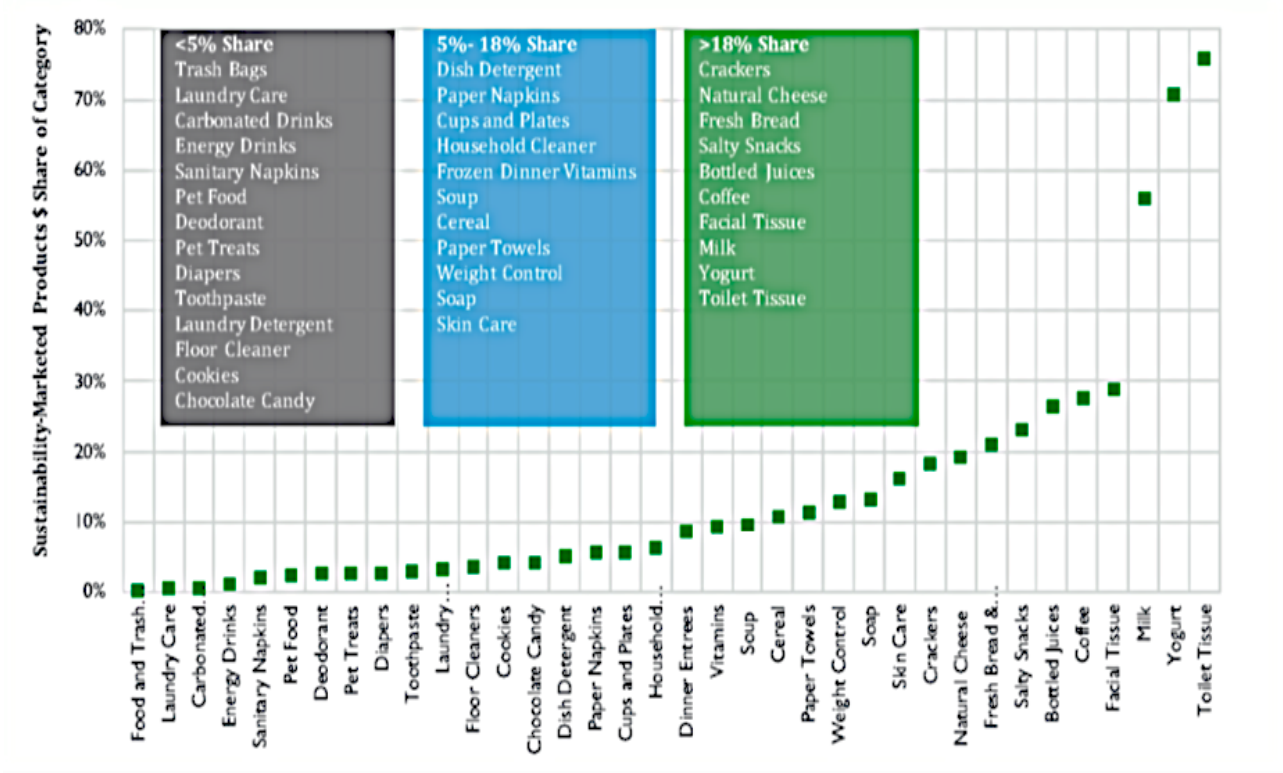
With the worldwide increase in green brand options available, consumers' have reported a 73% willingness to pay more factor (White, Habib, & Hardisty, 2019). Wei et al (2018) found that Japanese consumers were willing to pay a premium of 8% to 22% for organic food, Spanish consumers a premium of 22-37%, Canadians 10% more. In China consumers have also accepted organic food at a premium price and are WTPM generally if their income allows it (Li, Lee, Lin, Liu & Tsai, 2019).

For the South African consumer who has a constrained budget, makes commonplace food purchases that would ordinarily be a routine purchase, becomes more involved due to disposable income constraints and hence alternatives are considered (Papista, Chrysochou, Krystallis, & Dimitriadis, 2018). Consumers in South Africa have reported a 20% trading down in food brands and 23% downtrading in non-food categories, with pasta, rice, household cleaning supplies, milk, and laundry showing the biggest movements (Hattingh et al, 2016). It was identified that higher income consumers including emerging wealthy to affluent groups representing only 5.5% of the population would be in a position to be more relaxed about their purchasing choices and thereby we assume that they would be WTPM.

What is also interesting from the literature is which product categories lend themselves to being more acceptable as a green premium than others, for example organics food mentioned in many of the literature in this section.

Looking at the green product categories certain green categories have a greater market share and better financial performance than others driven by their green claims supported with functional claims (Kronthal-Sacco, Holt, Atz, Whelan, 2020). Figure 5 below depicts these green product categories which have a reported 16.6% market share vs conventional products growing at 50.1% in the US in 2018 (Kronthal et al, 2020).

Figure 5: Green product Categories Market Share Source: Kronthal et al (2020).



Of the food categories depicted in Figure 5 above, the products that would tend to be common to most HH's are the ones generally with a higher market share. For the purposes of this study, food categories common to most South African households will be researched. This is also important as the affordability for different food groups would differ for differing income groups and product categories. For example smaller HH's would purchase smaller quantities of milk, whereas larger families would tend to purchase this in bulk or more frequently. Furthermore the life stage nuances would also have an impact theoretically on the product category choices.

These sections bring us to the next hypothesis investigated in this study relating to food categories having a differing impact on consumers WTP green in those categories.

H2a: the relationship between life values and willingness to purchase green products is moderated by product categories

2.5. GREEN PRODUCTS AND PRICE PERCEPTIONS

Studies have shown that green products are generally perceived as more expensive versus comparative traditional brands in emerging markets, and can inhibit green purchasing however some studies have concluded that green consumers are not oversensitive to price as they believe in the added product benefits is being an eco-friendly green brand (Setyawan, Noermijati, Sunaryo & Aisjah, 2018). These nuances in feelings about green brands and the associated willingness to pay more has not been fully explored in other emerging markets, coupled with the uniqueness of the South African consumer landscape lends itself to a territory to be researched further.

In the study by Kim, Lusk and Brorsen (2018) it was noted that when consumers were observed whilst shopping, looking into their eyes when they select a product, and gaining the shoppers name and details had a causal relationship with social pressures eliciting a higher "willingness to pay" for apples and milk that are organic in the United States of America. This evidence is further corroborated by Wei et al (2018) who theorised the current research and found that Japanese consumers were willing to pay a premium of eight -22% for organic food, Spanish consumers a premium of 22-37%, Canadians 10% more. Argentinians were an anomaly group with mixed feedback at a range of six to 300%, whilst more educated consumers reported a reluctance to pay more as they were savvy enough to gain information on food safety, and a large group of consumers who felt organic pesticide free food should not come at a premium. Consumers in India

indicated a high willingness to pay for added value benefits, superior packaging, and the recyclability and reusability (Singh & Pandey, 2018). The disparity comes in when the perceived value received for green brand benefits is perceived to be below the normal non-green purchase choice, and at that stage the price premium for the green brand is deemed to create the value barrier to purchase (Kushwah, 2019).

Knowledge about green brand benefits is a start to the consumer consideration process, however, there is a gap identified between knowledge about green brands and actual purchasing behaviour translating into increased green brand sales (Cheung & To, 2019; Maichum, Parichatnon, & Peng, 2016). Drawing parallels from Thailand, a similar emerging market to South Africa, where consumers positive green brand attitudes, social subjective norms, and the relative ease of purchase convenience and availability have all been found to create positive purchase intent (Maichum et al, 2016). Eco concern driven by motivation and eco literacy leading to ability to make a change were identified drivers as an influencer of changing purchasing habits, with a high eco literacy and eco concern a precursor found in the consumers' willingness to pay more for a green product in Texas (Wei et al, 2018). As awareness leading to eco-literacy was a key factor noted for choices in product selection and pesticide free food should not be charged at a premium according to Wei et al (2018) for the South African consumer educational communication is especially applicable with the need to educate consumers more on food choices to make informed decisions and the need for these options to be price accessible.

Price is determined as a key purchasing factor and deemed higher than brand loyalty, i.e.: a brand compromise would be made if the preferred brand fell out of the budgeted

spend, and once a brand compromise is made consumers might not return to the original preferred brand (Hattingh et al, 2016). Limited income and economic resources were found to encourage price as a barrier for WTP green (Joshi and Rahman, 2015). For green purchases extending the Hattingh et al (2016) theory on general brands, we infer that if a brand compromise has to be made to a green brand the consumer isn't likely to return to the original brand and stay loyal to the green brand if affordable.

Research in other markets has shown that consumers are willing to pay more for green products for certain socially conscious behaviour, like non-testing on animals and protection against child labour, whilst a premium of approximately 10% would be acceptable to consumers and justified as an ethical price premium, conversely an additional cost above this point would be deemed disproportionate to the benefits (Shao & Ünal, 2019). Conversely the South African middle to lower income group consumers actively seek out price promotions, and actively compare prices for better deals (Hattingh et al, 2016). Consumers in South Africa would perceive price according to their affordability hence the propensity noted by Hattingh et al (2016) above, to seek out price promotions would be key for green product choices. If this consumers life stage permits, then would this consumer seeking products based on pricing promotions include green brand choices, if they fall into the price acceptability is an area that research will seek to tackle. The life stages also might influence the mindset of the consumer relating to the perspective on green messaging and if they are aware and value these messages, like collectivist or more utopian life stages than if they are in an indifferent life stage (TGI – Ask Afrika, n.d.).

These sections discussing price perceptions and a WTP for green brands for consumers that may be in different life stages, bring us to the next hypothesis.

> H2b: the relationship between life values and willingness to purchase green products is moderated by price of green product

2.6. BRAND LOYALTY & GREEN CHOICES

It has been reported that choosing sustainable green brands are associated with a warm glow feeling associated with making a socially acceptable choice and are related to a motivational feeling related to the green product choice (White, Habib, & Hardisty, 2019). Kalburan & Hasiloglu (2018) prove the relationship between conscious environmental behaviour to green brand awareness, furthermore the relationship of green brand awareness to green brand loyalty, hence the importance of creating awareness in South Africa on green brands in the aim to create a green brand loyalty consumer base.

Defining brand loyalty from the existing literature, affirms that the key principle to loyalty is repeated repurchase displayed behaviourally over time and attitudinally through positive emotional feelings crating ties with the brand (Dowling, Hammond & Uncles, 2003).

The jump between knowing about a green brand option, moving into consideration of the green choice and subsequently making the green brand selection is the key area for understanding in the South African market where it has been rationalised that the green

brand would still need to meet the quality, product features and benefits sought by the consumer (Jaju, 2015; Maichum, Parichatnon, & Peng, 2016). For green food in particular even though a consumer may have purchased a green food option previously, trade-offs are made when repurchasing driven by perceived value of the product and price, hence loyal repurchasing is not guaranteed (Papista, Chrysochou, Krystallis, & Dimitriadis, 2018). As per other brands repurchasing a green brand would need to be evaluated by the consumer during and post use in comparison to their usual product choice, and loyalty is developed with consistent repurchase over time (Papista et al, 2018; Dowling et al, 2013).

Looking at factors that deter a consumer from being loyal to a brand, the functional delivery experienced as well as the psychologic association with the brand choice is key (Kushwah, 2019). This theory can be extended to green purchases when if for example a green brand is purchased, delivery of the functional benefits is key to repurchase, as if the green brand doesn't deliver these, repurchase will be low. Kushwah (2019) also refers to the consumers perceived value of the organic food choice was not deemed as high as the normal food choice. This thinking can be applied to green brands in that organic food has similar green and sustainability benefits, however if the perceived value of the green food, once experienced and consumed does not measure up, repurchase is unlikely. However successful loyalty can be built with extending entrenched brands into the green brand space and taking those loyal consumers along as affirmed by Kronthal-Sacco et al (2020) who noted that legacy brands which existed as a normal brand and then evolved to offer green benefits have shown a greater market performance than non-legacy brands.

Consumer's that are more aware of the environmental footprint they leave behind and make more informed purchasing choices with respect to environmental impact of the product they choose (Kalburan & Hasiloglu, 2018; Maichum et al, 2016). Information is therefore key to making the green food choice. Linking back to the theory on consumer life stages, there are some life stage categories that have more collectivist perspectives and therefore lend themselves to being more open about sustainable green messaging (TGI – Ask Afrika, n.d.). Once the choice is made, repurchasing is needed to create the green loyalty pattern. Theorising that the consumers that are open to green messaging fall within particular life stages, those life stages also ;end themselves to consumer perspectives that make purchase habits more loyal, for example would a traditionalist be less willing to change brands and stay with current purchase habits, than a motivated life stage consumer.

Consumers that have a positive attitude towards green brands but are also informed about the green products price, quality, benefits and features have a propensity to convert to the green brand (Jaju, 2015; Maichum et al, 2016). Positive attitudes leading to being green informed are important in the consumer life stages as mentioned in section 2.3.1 the more utopian and collectivist life stages seem to be more open to this messaging (TGI – Ask Afrika, n.d.). This is important because the key to building loyalty is choosing the green brand firstly, and secondly being satisfied with the attributes, listed by Jaju (2015) namely green price; green quality; green benefits and features; to a degree that that it is considered for repurchase.

This section has expanded on the green brand choices specifically relating to loyalty, indicated with the green brand choice and repurchasing habits and how the life stages of

a consumer might intercept the consumers decision based on their reference frame. This brings us to the next proposed hypothesis as stated below.

H2c: the relationship between life values and willingness to purchase green products is moderated by level of brand loyalty of an individual

2.7. HOUSEHOLD INCOME LEVELS & GREEN WTPM

Against a backdrop of socio-political change South Africans are resilient though the recent inflationary pressures place most South Africans under financial strain, living mostly from paycheque to paycheque, coupled with the high unemployment rate, concerns about spending and financial stability remains a tension point (Hattingh, Magnus, & Ramlakan, 2016). The SALGA ORG (2016) study summarised in Table 1, shows movements within the middle income groups with12,700 households slipping from group 6 to group 5, and 16,000 households moving from group 2 to group 1 in South Africa, driven negatively by low employment rates and personal income declines.

Table 1: Household Income group segmentation. Sourced from SALGA ORG (2016)

Household income groups	2016 income brackets, p.a.	Description	% of total households	% share of income	Primary source(s) of income
Group 1	R0 - R20,500	Lowest	18.9	0.9	38% salaries, 37% grants
Group 2	R20,501 - R89,000	Second lowest	43.4	10.7	58% salaries, 30% grants
Group 3	R89,001 - R202,500	Low emerging middle	16.3	12.0	86% salaries
Group 4	R202,501 - R412,000	Emerging middle	10.0	16.0	86% salaries
Group 5	R412,001 - R707,000	Realised middle	5.9	17.5	84% salaries
Group 6	R707,001 - R1, 512,000	Emerging affluent	4.3	22.7	87% salaries
Group 7	R1,512,00 - R2,414,000	Affluent	0.8	8.1	90% salaries
Group 8	R2,414,001+	Wealthy	0.4	12.0	60% investments, 36% salaries

The income groupings and pressure on the middle and lower classes, especially with consumers slipping down the socio-economic chain who are dependent on social grants, and high unemployment are significant for the shopper who is faced with these challenges daily (SALGA ORG, 2016). Under financially pressured times, there are key habits emerging from the South African consumer, namely that they actively seek out ways to save money through price comparisons, delaying purchases, and looking for promotions (Hattingh et al, 2016).

Whilst the SALGA ORG (2016) income groupings shed light into the financial incomes of households in South Africa, insight into these consumers lifestyles and behaviour is a gap that TGI data (2019) adds to the financial view for a robust picture of the consumer. TGI data (2019) delves into the socio economic levels (SEL) of South African consumers and groups consumers into SEL's of 1 through to 10, with 10 being the highest SEL and 1 being the lowest, depicted in Appendix B.

Hattingh et al (2016) established that when disposable income is constrained that consumers will make trade-offs and seek deals when purchasing leading, to changing brand choices. Affirming this theory is a study in China depicting low income HH's have a want to buy organic food but high price is a deterrent to them vs conventional products, found predominantly in young families (Li et al, 2019). Li et al (2019) also affirmed the converse, that high income HH's showed a high WTPM for organic food as the understanding was high of the organic farming process justifying the premium and superior quality of fruit and vegetables. This is a key fact as if the China organic food Li et al (2019) comparison can be inferred to South Africa, then price and affordability will outweigh the life stage values even if consumers have an affinity to want to buy green. This theory will be tested in this research further.

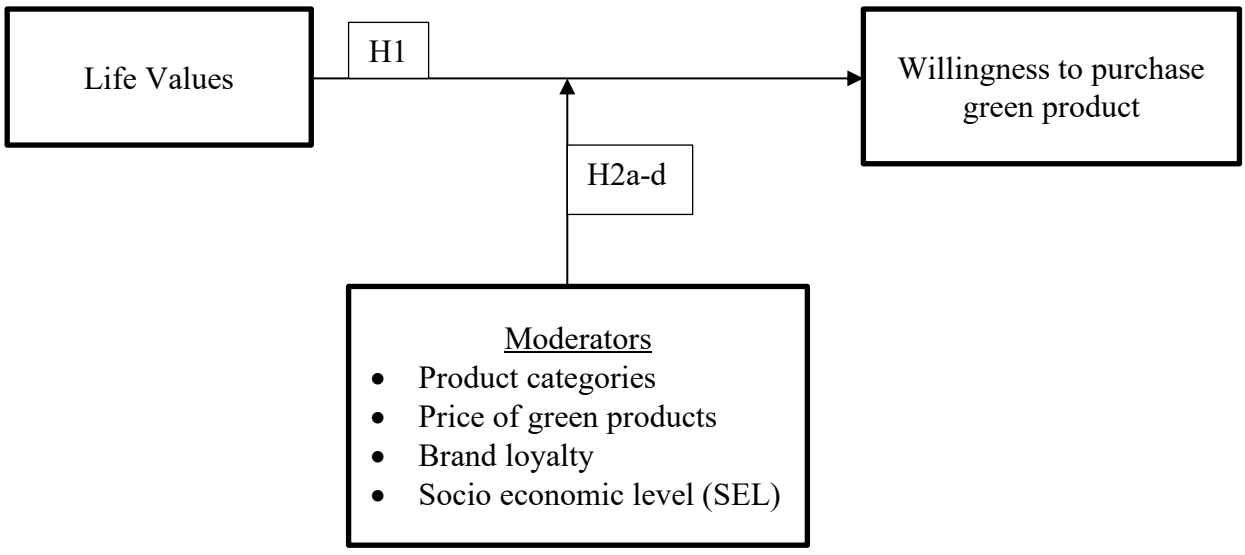
This discussions on the income levels of South African HH's and how green product choices are made within this content bring us to the next hypothesis for this research.

H2d: the relationship between life values and willingness to purchase green products is moderated by socio-economic level of a consumer

2.8. CONCLUSION OF LITERATURE REVIEW

The literature review section delved into detail about consumer life stages as a lens in which the South African consumer makes purchasing decisions, as well as green brands and WTP moderated by several key factors. The moderating factors namely, product categories; price; brand loyalty; and socio-economic level, helped this research to affirm hypothesis that were further tested. Figure 6 below further summarizes the hypothesis in a relationship flow diagram.

Figure 6: Research Hypothesis Flow diagram



H1: Life values of individuals will influence their willingness to purchase green products

H2a: the relationship between life values and willingness to purchase green products is moderated by product categories

H2b: the relationship between life values and willingness to purchase green products is moderated by price of green product

H2c: the relationship between life values and willingness to purchase green products is moderated by level of brand loyalty of an individual

H2d: the relationship between life values and willingness to purchase green products is moderated by socio-economic level of a consumer

CHAPTER 3. RESEARCH METHODOLOGY

3.1. INTRODUCTION & RESEARCH PHILOSOPHY

The research objectives delving into the green brands and choices made by South Africans has been identified as a rich territory for further investigation. The approach of this research has been taken to effectively add to the body of research available and make contributions to academia as well as practical implications for industry. With the objectives in mind, a key tactic for the methodology choices has been to gain scale with many responses and an approach that yields measurable results. The definition of Secondary data analysis which this study meets, can be defined by Johnston (2017, p2) as “any further analysis of an existing dataset which presents interpretations, conclusions or knowledge additional to, or different from, those presented in the first report on the inquiry as a whole and its main results”.

3.2. RESEARCH APPROACH & STRATEGY

As scale of this research has been identified as a key factor for success, a methodology was devised that enabled the researcher to leverage partnerships and in conjunction with the TGI Ask Afrika research group, was identified as a partner that would enable access to a national consumer survey base that this research could leverage for data collection and analysis further.

The strategy taken in designing the methodology was to look at green brands across various income in South Africa. In order for the green brands to be common to many income groups, the idea was to look at common food product choices within HH’s. By deciding to choose common categories in HH’s, this enabled the research to be

applicable to many HH's and across SEL groupings, thereby rendering the research agency, TGI Ask Afrika, as a great partner fit for the research execution.

3.3. RESEARCH METHOD

A Quantitative paradigm has been chosen to test the identified hypothesis, with a survey questionnaire yielding measured responses, enabling further statistical analysis (Cooper & Schindler, 2014). Quantitative secondary data is data that has been collected for another primary purpose, but has relevance to the research study and can be analyzed in a systematic way to uncover insights pertinent for the research needs (Johnston, 2017).

Benchmarking data is collected on an ongoing basis from the TGI Group, who continually add robustness with quantitative and qualitative research with national coverage having access to approximately 30000 consumers (TGI – Ask Afrika, n.d.). benchmarking data is continually collected and build upon in the background with a team of ground research collectors and making use of mobile and digital tools to gain access to their respondent database, and each year this data is updated on a large scale with ad hoc updates also done (TGI – Ask Afrika, n.d.). This research relies on the benchmarking data collection method from the TGI group to yield the results presented in chapter 4.

3.4. RESEARCH TECHNIQUES AND PROCEDURE

As secondary quantitative data has been chosen for the purposes of this study, the data sample, collection and procedure has been set out by the international TGI agency. The Target group index data (TGI data, 2019) encompasses both demographic, consumer profiling data as well as attitudinal consumer behaviour (TGI – Ask Afrika, n.d.). The TGI data set represents an untapped minefield, including a measured data variable

ranking the consumer level of greenness that can be applied to various food groups and brands (TGI, 2019). The TGI data set is classified as benchmarking data, encompassing 8000 brands, in 570 product categories, 590 attitude statements, and is a global data standard available in most countries (TGI – Ask Afrika, n.d.). Hence no data collection instrument has been developed specifically for this study. A statement made by TGI executive Maria Petousis confirms:

> "Insights are tailor-suited for categories and link demographic, psychographic, brand and media insights – a tool that we believe marketers simply cannot afford to do without" ('TGI releases new data to the market', 2018).

3.5. POPULATION & SAMPLE

The population group available for this research was the large database of consumers and specifically 23346 consumers who can be accessed for green data metrics who fall across income groups and various life stages (TGI – Ask Afrika, n.d.). Based on a Likert scale of the level of greenness a consumer displays in their product choices as well as decision making, the TGI group has ranked the level of consumer in one of five groups namely, engaged greens, green supporters, neutral green, green cynics and green rejectors (TGI – Ask Afrika, n.d.). A super green consumer who we consider as basing all product choices on green benefits and one who is open to green messaging and initiatives would be classified as the engaged green, whereas green supports might be open to green options, however this might not always translate into a green product choice (TGI – Ask Afrika, n.d.). Green neutral is considered indifferent to green products whilst Green cynics would be those consumers who have reservations about green offerings for any number of reasons including but not limited to, not being aware

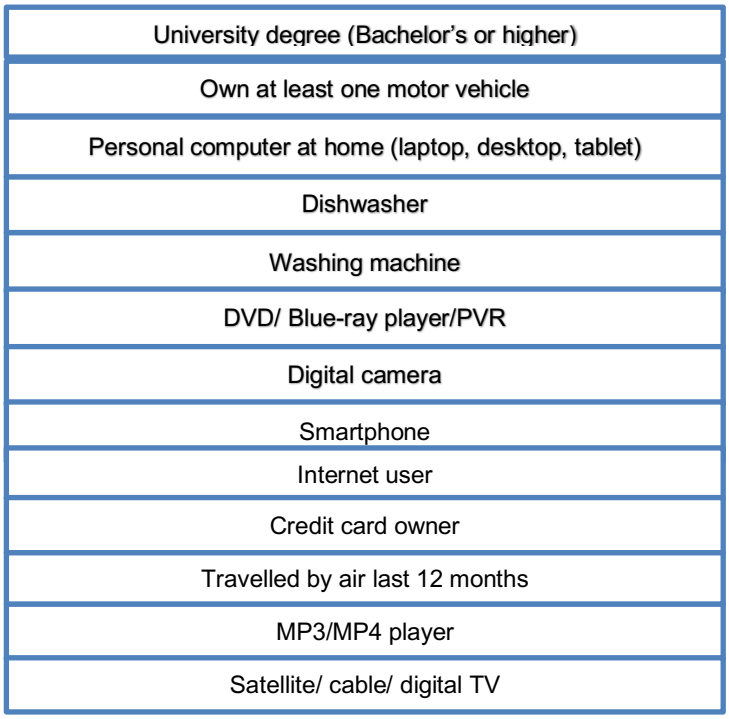
of the impact of their actions on their environment, or feeling that green messaging isn't to be trusted, etc. green rejectors are consumers who are unresponsive or indifferent towards green products (TGI – Ask Afrika, n.d.). The data presented in subsequent chapters will follow this green consumerism ranking.

3.6. DATA COLLECTION

The timings of the data collection has been during quarter 4 2019, and results computed in quarter 1 2020. For Socio-Economic levels TGI Ask Africa database collects data based on a set of thirteen variables comprising of possessions, lifestyle, education levels and the like from consumers on an ongoing basis and uses their respondent feedback to place consumers into a SEL grouping, and then extrapolates this data forward to rank the population (TGI, n.d). Figure 7 depicts the thirteen variables that influence a consumers SEL ranking as defined by the TGI, Ask Afrika group, however it should also be noted that other respondent data is also collected to gain a robust profile of each SEL group (TGI, n.d).

SEL rankings can provide a robust personification of consumer groupings and assist with consumer profiling and consumer targeting with the TGI data (2019) that is The highest SEL level is level 1 in which consumers earn (Source TGI, n.d).
Appendix 2 depicts the full picture of SEL's.

Figure 7: Socio-Economic level variables adapted from TGI (n.d).



3.7. MEASURES, DATA ANALYSIS AND INTERPRETATION

Quantitative data analysis entails using the statistical software available from TGI. The TGI dataset is available in a semi aggregated format and not at the individual respondent level raw data, which is TGI proprietary information. The statistical analysis therefor will be conducted via the TGI platform and the user software with Quantitative analysis to help decipher the relationships between the identified variables.

In order to determine if there is a relationship between the hypothesis variables correspondence analysis has been chosen as the statistical method. Correspondence analysis is the selected tool chosen when analysing the relationships between 2 clusters of variables, predominantly displaying the results thereof in a cross tab format or in plot diagrams (Greenacre et al., 2007).The purpose of correspondence analysis with multiple

data variables, like those depicted Figure 2 in this study is captured by Greenacre et al (2007)

> "Multiple correspondence analysis can analyse several categorical variables simultaneously, and is analogous to factor analysis of continuous variables" (p2).

As life values are a key part of the moderating values delved into within this research, the TGI dataset has offered lifestyle statements, which are used as a proxy to show life values across this study to show consumer attitudes and their lifestyle choices. This is key as the data analysis, analysis and presentation of results follows this principle.

Linear correlation was considered as a possible analysis technique for this study to gauge the relationship between the independent and dependent variables, as well as Bayesian analysis techniques which are also renowned for interpreting quantifiable insights from multiple data sets (Bell, DiStefano, & Morgan, 2010; Strata Corp LLC, 2019). As the TGI dataset is semi aggregated and the researcher has access to this format of data and not the individual respondent level data, these methods are deemed not suitable for computation and software analysis outside of the TGI platform. The TGI interface recommends and provides correlation analysis as a part of their statistics services to corporates and will be used for the purposes of this study.

Correspondence analysis includes depiction of the statistical results in a cross tabular format with the ultimate aim of producing a map of the points along two principle axis creating a visual two dimensional view of the results (Greenacre et al., 2007). Trends can

also be explored depicting general themes and associations based on proximity of the variables on the plot diagram (Greenacre et al., 2007).

3.7. ETHICAL CONSIDERATIONS

Ethical considerations for the research data collection process include ensuring that treatment of the data sourced from the TGI group is handled in an ethical manner, not distributed, is referenced in all instances and meets with the standards set out by the University of Witwatersrand and formal ethical waiver is received by the Ethics committee. TGI data (2019) is owned by the TGI group and the results will be reported in an aggregated format as agreed.

3.8. VALIDITY AND RELIABILITY

Validity as a concept in research is either internal referring to the conclusions drawn implying cause, and external validity referring to a causal relationship being generalized to people, times etc. (Cooper & Schindler, 2014). The TGI data (2019) dataset is a robust sample which has a continual collection of benchmarks taken from over 8000 brands, 570 categories, and 590 attitudinal statements that span the South African market (TGI – Ask Afrika, n.d.).

Regarding external validity and the issue of generalizing the results achieved in this research to the larger population group, the TGI data set is robust with almost 1000 users in each sub-segment, so whilst conclusions can be indicative of the behavior we are likely to see, this research still is reported behavior of a sample group.

CHAPTER 4: PRESENTATION OF RESULTS

INTRODUCTION

As planned in chapter 3, correspondence analysis was used to display the trends in the TGI dataset and key variables. This was done in collaboration with the TGI agency statistician and key account liaison as the research had access to the semi aggregated data only.

4.1 ANALYSIS & RESULTS

4.1.1 COMPUTATION OF RESULTS & INTERPRETATION

Computation of results were conducted via the TGI system. The feedback on the results computation process and rationale as identified by TGI are as follows which sets the scene for the rest of chapter 4 and 5 with regards to method and analysis (Dlamini & Richards, 2020).

- A correspondence map is symmetric plot and shows a global pattern within the data (Dlamini & Richards, 2020).
- The distances between the points in the correspondence map are chi-square distances between the profiles and the distance between any row points (*Statements*) / column points (*green values and life stages*) gives a measure of their similarity (or dissimilarity). Row points/Columns points with similar profile are close to each other on the factor map (Dlamini & Richards, 2020).
- The further away from the origin the attributes are, the more discriminating or differentiated they are (Dlamini & Richards, 2020).
- If the angle connecting the row point (*Statement*) and column point (*green values and life stage*) to the origin is narrow, it suggests a high probability of

association between the two. Example: Neutral greens and “gives me products/services of high quality” (Dlamini & Richards, 2020).

- A Green value and a statement have a high probability of being negatively associated if they are on opposite sides of the origin (Dlamini & Richards, 2020).
- If the angle connecting the green profile and a statement to the origin is 90 degrees and bigger, it suggests that the statement and the green profile are not associated (Dlamini & Richards, 2020).

4.2. ANALYSIS OF RESULTS AND DISCUSSION

4.2.1 OVERVIEW

The general results overview classifies the standard demographic overview for the respondents in the dataset by the level of green consumerism and this will form a basis for the entire results presentation. Based on a Likert scale of the level of greenness a consumer displays in their product choices as well as decision making, the TGI group has ranked the level of green consumerism in one of five groups namely, engaged greens, green supporters, neutral green, green cynics and green rejectors (TGI – Ask Afrika, n.d.).

A super green consumer who we will consider as basing all product choices on green benefits and one who is open to green messaging and initiatives would be classified as the engaged green, whereas green supports might be open to green options, however this might not always translate into a green product choice (TGI – Ask Afrika, n.d.).

Green neutral is considered indifferent to green products whilst Green cynics would be those consumers who have reservations about green offerings for any number of reasons including but not limited to, not being aware of the impact of their actions on their environment, or feeling that green messaging isn't to be trusted, etc. green rejectors are consumers who are unresponsive or indifferent towards green products (TGI – Ask Afrika, n.d.).

4.2.2 DESCRIPTIVE ANALYSIS

Table 2 summarises these demographics collected and in summary shows a younger South African population with the biggest group being between to 29 years of age, a close gender split, and most couples being either married or living together as life partners. Looking at the total dataset there are mostly Neutral Green consumers at 40,5% with the positive greens comprising of Engaged Green and Green Supporters in total contributing 30,19% and negative greens contributing 29,36% from the Green Cynics and Green Rejector groups.

Table 2: Consumer Demographics depicted with Level of Green consumerism

DEMOGRAPHICS	Elements	Total sample quantity	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
TOTAL SAMPLE OVERVIEW	Sample	23346	2196	4982	9510	4534	2124
	(000)	12249	1187	2509	4956	2426	1171
	vert%	100%	100%	100%	100%	100%	100%
	horz%	**100%**	**9,69%**	**20,5%**	**40,5%**	**19,8%**	**9,56%**
	Index Base		100 9,69%	100 20,5%	100 40,5%	100 19,8%	100 9,56%
AGE GROUP							
15-17	horz%	717	10,4%	24,5%	38,5%	17,9%	8,69%
18-20	horz%	1727	9,07%	18,2%	43,3%	17,9%	11,5%

DEMOGRAPHICS	Elements	Total sample quantity	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
21-24	horz%	2282	7,82%	20,7%	42,6%	19,4%	9,49%
25-29	horz%	3348	11,0%	20,7%	40,6%	19,0%	8,54%
30-34	horz%	3075	10,7%	21,7%	39,5%	18,9%	9,18%
35-39	horz%	3033	10,00%	21,7%	37,4%	20,5%	10,5%
40-44	horz%	2397	9,93%	21,3%	39,9%	19,2%	9,63%
45-49	horz%	1825	8,99%	19,0%	42,1%	21,6%	8,35%
50-54	horz%	1390	9,95%	18,8%	41,3%	20,3%	9,54%
55-59	horz%	1139	6,84%	18,9%	44,4%	20,3%	9,60%
60-64	horz%	922	10,1%	19,3%	36,6%	22,9%	11,1%
65+	horz%	1494	9,26%	19,2%	39,3%	22,6%	9,64%
GENDER							
Male	horz%	11645	9,28%	20,5%	41,1%	19,6%	9,58%
Female	horz%	11701	10,1%	20,5%	39,8%	20,0%	9,54%
MARITAL STATUS							
Married/Living together as partners	horz%	10976	9,80%	20,7%	41,5%	20,0%	7,95%
Married	horz%	8572	9,55%	21,3%	42,1%	19,3%	7,79%
Living together as partners	horz%	2404	10,5%	19,1%	40,1%	21,9%	8,40%
Single - Divorced/Separated	horz%	1336	9,52%	21,0%	37,5%	20,9%	11,1%
Single - Divorced	horz%	722	9,01%	22,8%	38,0%	17,9%	12,4%
Single - Separated	horz%	564	10,1%	18,9%	37,1%	24,2%	9,73%
Single - Never married	horz%	9984	9,74%	20,4%	40,0%	19,1%	10,7%
Single - Widowed	horz%	1050	8,35%	18,2%	38,2%	24,0%	11,3%
EMPLOYMENT STATUS							
Do not work - housewife at home/full time home maker	horz%	1521	11,7%	19,1%	40,5%	20,9%	7,86%
Do not work - long term illness / disabled	horz%	260	7,78%	17,7%	41,4%	23,3%	9,89%
Do not work - retired	horz%	2229	9,69%	20,0%	39,4%	21,8%	9,15%
Do not work - student / in full time education	horz%	2107	10,2%	20,0%	42,4%	17,8%	9,54%
Go out to work full-time (30+ hours per week)	horz%	6178	9,44%	23,4%	41,2%	17,8%	8,20%
Go out to work part-time (8-29 hours per week)	horz%	1218	9,55%	19,0%	42,0%	20,5%	8,85%
Go out to work part-time (Less than 8 hours per week)	horz%	493	9,61%	15,6%	43,0%	22,1%	9,69%
Total Full-Time	horz%	6886	9,30%	23,3%	41,0%	18,1%	8,36%
Total Not Working	horz%	6117	10,2%	19,7%	40,9%	20,1%	9,06%
Total Part-Time	horz%	2238	9,43%	18,2%	41,8%	21,0%	9,56%
Total Unemployed	horz%	8105	9,69%	19,6%	39,5%	20,5%	10,7%
Total Working	horz%	9124	9,34%	21,9%	41,2%	18,9%	8,69%
Unemployed - looking for first job	horz%	2679	9,11%	20,1%	39,9%	20,1%	10,9%
Unemployed - Other reasons	horz%	1479	8,83%	18,6%	38,6%	22,8%	11,2%
Unemployed - was employed / seeking work	horz%	3753	10,6%	19,7%	39,8%	19,3%	10,6%
Unemployed – discouraged workers (those not looking but could work)	horz%	194	6,99%	20,2%	35,3%	30,8%	6,69%
Work from home full-time / home office (30+ hours a week)	horz%	708	8,16%	22,8%	38,7%	20,6%	9,74%
Work from home part-time (8-29 hours per week)	horz%	310	9,91%	19,6%	36,8%	23,0%	10,8%

DEMOGRAPHICS	Elements	Total sample quantity	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
Work from home part-time (Less than 8 hours per week)	horz%	217	7,83%	17,9%	44,2%	18,7%	11,4%
ETHNIC GROUP							
White	horz%	5822	8,55%	25,2%	41,7%	17,4%	7,18%
Other	horz%	3	70,0%	0,00%	30,0%	0,00%	0,00%
Indian/Asian	horz%	1972	5,30%	21,6%	43,2%	18,3%	11,6%
Coloured	horz%	3699	9,71%	25,9%	40,8%	16,0%	7,68%
Black	horz%	11850	10,2%	18,3%	39,9%	21,1%	10,4%
EDUCATION LEVEL							
Grades 1 or 2(Sub A / B)	horz%	151	5,77%	17,0%	36,7%	28,3%	12,2%
No formal schooling	horz%	302	10,9%	13,2%	39,3%	25,8%	10,7%
Other school level (Example. Post Matric, A Levels, O Levels, other non South African school level)	horz%	357	12,4%	19,7%	41,9%	19,5%	6,43%
Post matric degrees/diplomas/certificates	horz%	4466	9,73%	25,6%	39,9%	17,8%	6,97%
Standard 1-3/Grade 3-5	horz%	334	9,08%	14,8%	45,4%	19,8%	10,9%
Standard 10/Grade 12 (Matric)	horz%	9235	9,36%	20,8%	42,6%	18,2%	9,07%
Standard 4/Grade 6	horz%	315	11,5%	21,1%	39,4%	17,4%	10,7%
Standard 5/Grade 7	horz%	627	7,72%	14,1%	29,0%	38,5%	10,8%
Standard 6/Grade 8	horz%	938	9,15%	22,0%	37,0%	21,2%	10,6%
Standard 7/Grade 9	horz%	1007	9,68%	19,8%	40,5%	19,3%	10,6%
Standard 8/Grade 10	horz%	2399	11,3%	18,8%	36,2%	21,0%	12,6%
Standard 9/Grade 11	horz%	3215	9,60%	17,9%	41,4%	20,5%	10,5%
Artisans	horz%	91	5,85%	25,1%	36,8%	21,8%	10,5%
MBA/MBL	horz%	15	0,00%	18,0%	54,0%	26,6%	1,44%
Other	horz%	38	13,2%	20,0%	37,9%	23,9%	4,95%
Post-graduate degree completed / Doctorate	horz%	54	4,97%	23,1%	34,4%	30,5%	6,99%
Post-graduate degree completed / Honours	horz%	211	8,82%	24,5%	50,7%	11,6%	4,40%
Post-graduate degree completed / Masters	horz%	117	8,78%	25,4%	43,5%	20,4%	1,90%
Professional certification e.g. nurses, teachers etc	horz%	289	12,3%	25,1%	42,0%	15,3%	5,28%
Technical College	horz%	1103	12,6%	26,8%	34,2%	19,2%	7,28%
Technikon diploma	horz%	1120	9,20%	24,4%	42,8%	15,8%	7,82%
University degree completed / Bachelors Degree	horz%	1428	7,97%	26,5%	40,0%	18,4%	7,16%

Taking a closer analysis Table 2 shows that in terms of age groups, setting aside the Neutral Green propensity, generally older consumers above 30 years as well as young millennials between 15 – 17 years show either a Green Supporter or Engaged Green perspective.

In general Table 2 also shows that unemployed consumers tend to be Green Neutral predominantly or either Green Cynics or Green Rejectors. Table 3 also shows that as the education level of consumers rise the percentage propensity of those higher educated consumers having a tendency to be Green Neutral, Engaged Green and Green Supporters increases, despite the actual sample quantity of respondents with a higher than grade 10 education tends to decrease.

4.2.3 ANALYSIS OF HYPOTHESES

The following sections will further depict the results available by hypothesis group.

H1: LIFE VALUES OF INDIVIDUALS WILL INFLUENCE THEIR WILLINGNESS TO PURCHASE GREEN PRODUCTS

The level of agreement of a set of green life statements are depicted in the rows of Table 3. These statements are ranked by the level of Green tendencies consumers display as per the columns . Table 3 classifies the level of green consumers, i.e. the Likert scale of Green advocates through to rejectors, and compares this with a standard set of TGI life values sustainability focused purchasing statements.

In the South African total sample set most consumers classify themselves as Green Neutral, however taking a deeper look into the sustainable lifestyle statements, some are more appealing to the South African consumer than others. The statements in table 4 that resonate with Engaged Green consumers predominantly are: ‘There is too much

concern with the environment', and more pro green statements like: 'People have a duty to recycle' and 'I would be prepared to pay more for environmentally friendly products'.

Conversely on the other end of the spectrum table 3 depicts Green Rejectors and Green Cynics show an aversion for pro green lifestyle statements, rejecting the concern with recycling, unwilling to pay more for green products, and a lack of concern for the environmental pollution.

Table 3: Level of Green consumerism Versus Green Loyalty Life style Statements

	Elements	Total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
total	Sample	23346	2196	4982	9510	4534	2124
	vert%	100%	100%	100%	100%	100%	100%
	horz%	100%	9,69%	20,5%	40,5%	19,8%	9,56%
There is too much concern with the environment	Sample	11391	1970	3695	4491	992	243
	vert%	49,6%	91,2%	75,4%	49,0%	22,0%	12,5%
	horz%	100%	17,8%	31,1%	39,9%	8,77%	2,42%
I would be prepared to pay more for environmentally friendly products	Sample	12669	2057	4098	5206	1093	215
	vert%	53,3%	93,6%	81,8%	53,5%	24,1%	10,5%
	horz%	100%	17,0%	31,5%	40,7%	8,95%	1,89%
People have a duty to recycle	Sample	12675	2100	4136	5133	1092	214
	vert%	53,2%	95,4%	83,3%	52,6%	24,0%	8,69%
	horz%	100%	17,4%	32,1%	40,0%	8,94%	1,56%
I would never buy toiletries and cosmetics that have been tested on animals	Sample	15650	1879	3889	6429	2418	1035
	vert%	67,2%	85,2%	78,6%	67,9%	54,2%	48,4%
	horz%	100%	12,3%	24,0%	40,9%	16,0%	6,89%
All packaging for products should be recycled	Sample	11945	2077	3927	4792	943	206
	vert%	50,2%	94,3%	77,2%	49,8%	20,9%	9,52%
	horz%	100%	18,2%	31,5%	40,2%	8,26%	1,81%
I am concerned about the quality of my tap water	Sample	12755	2141	4070	5086	1197	261
	vert%	53,6%	97,6%	80,7%	52,6%	25,7%	12,7%
	horz%	100%	17,7%	30,9%	39,7%	9,50%	2,27%
I am worried about pollution and congestion cause by cars	Sample	11098	1888	3500	4375	1118	217
	vert%	45,9%	84,2%	68,3%	45,2%	23,1%	8,91%
	horz%	100%	17,8%	30,5%	39,9%	9,98%	1,86%

	Elements	Total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
I make a conscious effort to recycle	Sample	11710	1809	3512	4763	1280	346
	vert%	48,6%	79,8%	69,8%	48,6%	26,9%	15,9%
	horz%	100%	15,9%	29,4%	40,5%	11,0%	3,14%
I am prepared to make lifestyle compromises to benefit the environment	Sample	13122	1940	3812	5400	1477	493
	vert%	55,2%	88,4%	75,6%	55,8%	32,0%	22,9%
	horz%	100%	15,5%	28,1%	40,9%	11,5%	3,97%
I take positive steps to reduce the energy I use	Sample	13368	1998	3856	5319	1656	539
	vert%	56,0%	89,9%	77,3%	54,8%	35,3%	24,4%
	horz%	100%	15,5%	28,2%	39,6%	12,5%	4,17%
The effects of climate change are too far in the future to really worry me	Sample	11439	1460	3302	4745	1446	486
	vert%	48,4%	67,9%	65,6%	49,9%	31,0%	22,0%
	horz%	100%	13,6%	27,8%	41,7%	12,7%	4,34%
It's only worth doing environmentally-friendly things if they save you money	Sample	14489	1826	3855	6047	2050	711
	vert%	61,9%	84,8%	77,4%	63,9%	44,6%	32,5%
	horz%	100%	13,3%	25,6%	41,8%	14,3%	5,03%

The willingness to pay more for green products was directly asked in lifestyle statement two depicted in Table 3, 'I would be prepared to pay more for environmentally friendly products' and the green supporters and engaged greens were very positive towards the statements whilst the green rejectors and green cynics rejected the statement. Also interesting to note is that pro green consumers are also looking for environmentally friendly actions that save them money, as depicted with the statement 'It's only worth doing environmentally-friendly things if they save you money'. Also of interest is these lifestyle statements are inherently indicative of consumers behaviours when making green or non-green choices, and the lifestyle statement 'I am prepared to make lifestyle compromises to benefit the environment', is very telling in that the same relationship is seen as per the willingness to pay more with green supporters and engaged greens willing to make lifestyle changes and the cynics and rejectors unwilling to do so.

In exploring Hypothesis 1 further we plot the Correspondence map of the Lifestyle statements with the level of green consumerism and have added the additional data point of consumer life stage groups. Referring back to Figure 4 in the Chapter 2 Literature review delved into the consumer life values by looking at their life stages which are accompanied with a similar mindset [e.g.: traditionalists vs utopian etc].

The Correspondence map in Figure 8 helps us to visually depict the data points to view relationships and associations from them (Dlamini & Richards, 2020).

Figure 8: Correspondence Map of Lifestyle statements, Level of Green consumerism and Consumer life stages



The level of greenness in Figure 8 is the vertical axes and the lifestyle statements are on the horizontal axes with the statements being categorical variables, definitely disagree; tend to disagree; neither agree nor disagree; tend to agree; definitely agree. Figure 8 shows a relationship in the bottom right quadrant between Green Supporters, Engaged Greens, Virtuous consumers and the key life stage statements namely, 'I am worried about pollution and congestion caused by cars'; 'All packaging for products should be recycled'; 'People have a duty to recycle'; and 'I would be prepared to pay more for environmentally products'.

Table 4 depicts traditionalists and virtuous consumers have the highest contributions of positive greens, both Green Supporters and Engaged Greens. Also noteworthy is that the indifferent consumer group has a large contribution of positive greens as well.

Table 4: Consumer Life Stages versus Level of Green consumerism

	Elements	Total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
Total	Sample	23346	2196	4982	9510	4534	2124
	vert%	100%	100%	100%	100%	100%	100%
	horz%	**100%**	**9,69%**	**20,5%**	**40,5%**	**19,8%**	**9,56%**
Comfort Zone Dwellers	Sample	1217	102	222	485	261	147
	vert%	5,17%	4,58%	4,59%	5,18%	5,71%	5,85%
	horz%	**100%**	**8,58%**	**18,2%**	**40,5%**	**21,9%**	**10,8%**
Experiencers	Sample	3608	170	760	1549	765	364
	vert%	15,0%	8,01%	14,8%	15,7%	16,8%	16,0%
	horz%	**100%**	**5,16%**	**20,2%**	**42,3%**	**22,2%**	**10,2%**
Independents	Sample	2140	147	492	883	395	223
	vert%	9,26%	5,68%	10,5%	9,38%	8,76%	10,9%
	horz%	**100%**	**5,94%**	**23,2%**	**41,0%**	**18,7%**	**11,2%**
Indifferent	Sample	2578	214	558	1058	507	241
	vert%	11,3%	9,89%	11,1%	11,6%	11,7%	11,7%
	horz%	**100%**	**8,45%**	**20,0%**	**41,2%**	**20,4%**	**9,89%**
Materialists	Sample	1898	140	359	797	377	225
	vert%	8,29%	6,53%	7,14%	8,71%	8,34%	10,6%
	horz%	**100%**	**7,64%**	**17,6%**	**42,5%**	**19,9%**	**12,3%**
Motivated	Sample	3899	197	746	1664	877	415

	vert%	16,5%	8,69%	13,9%	17,4%	19,8%	19,3%
	horz%	100%	5,11%	17,3%	42,7%	23,8%	11,2%
Traditionalists	Sample	3655	524	784	1385	733	229
	vert%	15,3%	22,4%	15,4%	14,1%	15,6%	12,1%
	horz%	**100%**	**14,2%**	**20,6%**	**37,4%**	**20,2%**	**7,60%**
Utopians	Sample	1466	215	312	579	213	147
	vert%	6,44%	11,1%	6,58%	6,04%	4,60%	6,84%
	horz%	**100%**	**16,8%**	**20,9%**	**38,0%**	**14,2%**	**10,2%**
Virtuous	Sample	2885	487	749	1110	406	133
	vert%	12,7%	23,1%	16,0%	11,9%	8,71%	6,63%
	horz%	**100%**	**17,7%**	**25,8%**	**37,9%**	**13,6%**	**5,00%**

In summary H1 has proven that there is a relationship between consumers being pro green and having an affinity to gravitate towards accepting positive green lifestyle statements and conversely green rejectors and cynics have shown an aversion to willing to purchase green products. Traditionalist and Virtuous groups of consumers also have a affinity to be positively green.

H2A: THE RELATIONSHIP BETWEEN LIFE VALUES AND WILLINGNESS TO PURCHASE GREEN PRODUCTS IS MODERATED BY PRODUCT CATEGORIES

The popular staple food categories common to most households have been chosen for this study, with the top three brands at a minimum that play in that category being selected. The green values and level of green consumerism, namely whether that consumer is pro green, green neutral or green rejector have indicated their purchasing habits and affinity for each of these top performing brands within these food sub-categories in Table 5 below. Table 5 classifies the data into shaded the cells with an

above 20% score indicating a significant result per green consumer group, and the colour green represents a positive green relationship whilst the red colour indicates a negative relationship.

Table 5: Popular Stable food brands and Level of Green Consumerism

Food Category and Brand			Green Values: Engaged Greens	Green Values: Green Supporters	Green Values: Neutral Greens	Green Values: Green Cynics	Green Values: Engaged Greens
TEA (BAGS/LOOSE): Brands -Any: Most often: Five Roses	horz%	100 %	11,1%	20,2%	42,0%	17,6%	9,20%
TEA (BAGS/LOOSE): Brands -Any: Most often: Freshpak	horz%	100 %	10,1%	20,3%	41,9%	19,2%	8,62%
TEA (BAGS/LOOSE): Brands -Any: Most often: Glen	horz%	100 %	11,4%	21,5%	41,8%	17,1%	8,25%
TEA (BAGS/LOOSE): Brands -Any: Most often: Joko	horz%	100 %	9,51%	18,3%	39,2%	21,6%	11,4%
TEA (BAGS/LOOSE): Brands -Any: Most often: Lipton	horz%	100 %	13,7%	21,6%	36,2%	18,3%	10,2%
MARGARINE: Brands: Most often: Blossom	horz%	100 %	7,66%	15,4%	43,5%	21,5%	11,9%
MARGARINE: Brands: Most often: D'Lite	horz%	100 %	10,3%	19,4%	39,3%	20,4%	10,6%
MARGARINE: Brands: Most often: Flora	horz%	100 %	11,9%	21,2%	39,6%	20,3%	6,91%
MARGARINE: Brands: Most often: Rama	horz%	100 %	9,36%	19,0%	40,7%	20,7%	10,3%
MARGARINE: Brands: Most often: Romi	horz%	100 %	4,49%	12,9%	38,5%	35,8%	8,27%
MARGARINE: Brands: Most often: Rondo	horz%	100 %	5,62%	14,3%	41,8%	25,0%	13,2%
SUGAR AND ARTIFICIAL SWEETENER: Brands(Sugar): Most often: Huletts	horz%	100 %	10,6%	22,7%	43,2%	16,7%	6,81%
SUGAR AND ARTIFICIAL SWEETENER: Brands(Sugar): Most often: Illovo	horz%	100 %	13,1%	19,2%	41,2%	18,6%	7,91%
SUGAR AND ARTIFICIAL SWEETENER: Brands(Sugar): Most often: Pick n Pay House Brand	horz%	100 %	8,39%	20,5%	39,5%	17,1%	14,5%
SUGAR AND ARTIFICIAL SWEETENER: Brands(Sugar): Most often: Selati	horz%	100 %	10,4%	19,1%	40,5%	20,4%	9,65%
RICE AND COUSCOUS: Brands: Most often: ACE Maize	horz%	100 %	6,83%	16,1%	34,4%	24,6%	18,2%
RICE AND COUSCOUS: Brands: Most often: Aunt Caroline	horz%	100 %	11,7%	23,0%	44,5%	16,2%	4,62%
RICE AND COUSCOUS: Brands: Most often: Shoprite Ritebrand	horz%	100 %	8,83%	17,5%	41,0%	21,8%	10,8%
RICE AND COUSCOUS: Brands: Most often: Spekko	horz%	100 %	10,3%	18,7%	42,4%	19,7%	8,89%
RICE AND COUSCOUS: Brands: Most often: Taj Mahal	horz%	100 %	13,9%	20,7%	36,7%	21,9%	6,82%
RICE AND COUSCOUS: Brands: Most often: Tastic	horz%	100 %	10,5%	19,3%	39,8%	20,5%	9,88%
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Bokomo Corn Flakes	horz%	100 %	8,81%	24,2%	34,6%	19,9%	12,4%
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Bokomo Weet-bix	horz%	100 %	9,07%	20,3%	40,7%	21,7%	8,22%
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Kellogg's All Bran Flakes	horz%	100 %	8,20%	19,9%	42,5%	19,9%	9,53%
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Kellogg's Coco Pops	horz%	100 %	10,6%	20,0%	42,2%	14,7%	12,5%
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Kellogg's Corn Flakes	horz%	100 %	10,4%	21,7%	40,6%	21,0%	6,37%
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Kellogg's Hi Fibre Bran	horz%	100 %	15,7%	25,2%	38,2%	14,1%	6,75%

Food Category and Brand			Green Values: Engaged Greens	Green Values: Green Supporters	Green Values: Neutral Greens	Green Values: Green Cynics	Green Values: Engaged Greens
BREAKFAST CEREALS (COLD): Brands -Ready-To-Eat Cereal: Most often: Kellogg's Special K	horz%	100 %	10,7%	23,6%	39,0%	15,5%	11,2%
BREAKFAST CEREALS (HOT): Brands -Oats: Most often: Bokomo Oats	horz%	100 %	11,3%	22,3%	40,0%	18,3%	8,08%
BREAKFAST CEREALS (HOT): Brands -Oats: Most often: Jungle Oats	horz%	100 %	8,74%	21,0%	44,4%	18,3%	7,51%
BREAKFAST CEREALS (HOT): Brands -Oats: Most often: Jungle Oats Instant	horz%	100 %	10,2%	22,1%	35,6%	20,2%	11,9%
BREAKFAST CEREALS (HOT): Brands -Oats: Most often: Jungle Oatso Easy	horz%	100 %	9,29%	21,6%	43,6%	13,5%	12,1%
BREAKFAST CEREALS (HOT): Brands -Porridge/Mabele: Most often: Ace Instant	horz%	100 %	6,52%	18,4%	50,9%	18,8%	5,40%
BREAKFAST CEREALS (HOT): Brands -Porridge/Mabele: Most often: Bokomo Maltabella	horz%	100 %	6,48%	20,8%	45,9%	20,6%	6,24%
BREAKFAST CEREALS (HOT): Brands -Porridge/Mabele: Most often: Bokomo Pronutro	horz%	100 %	14,2%	19,3%	38,6%	17,5%	10,3%
BREAKFAST CEREALS (HOT): Brands -Porridge/Mabele: Most often: Morvite	horz%	100 %	8,39%	17,9%	48,9%	14,8%	9,92%
INSTANT COFFEE: Brands: Most often: Nescafé Ricoffy	horz%	100 %	10,3%	18,8%	40,3%	20,7%	9,84%
INSTANT COFFEE: Brands: Most often: Frisco	horz%	100 %	10,2%	20,5%	40,2%	19,3%	9,72%
INSTANT COFFEE: Brands: Most often: Jacobs Kronung	horz%	100 %	10,8%	23,3%	41,0%	19,4%	5,42%
INSTANT COFFEE: Brands: Most often: Koffiehuis	horz%	100 %	8,58%	20,0%	37,9%	21,1%	12,4%
TINNED FISH: Brands: Most often: Lucky Star	horz%	100 %	10,4%	19,4%	40,1%	20,3%	9,75%
TINNED FISH: Brands: Most often: Glenryck	horz%	100 %	9,48%	20,2%	42,9%	18,5%	8,90%
TINNED FISH: Brands: Most often: Saldanha	horz%	100 %	10,3%	21,4%	42,5%	18,9%	6,85%
TINNED/CANNED BEANS: Brands: Most often: Koo	horz%	100 %	10,3%	20,4%	40,2%	19,8%	9,29%
TINNED/CANNED BEANS: Brands: Most often: Shoprite Ritebrand	horz%	100 %	10,2%	18,3%	40,8%	23,4%	7,37%
TINNED/CANNED BEANS: Brands: Most often: All Joy	horz%	100 %	7,92%	20,2%	33,7%	22,0%	16,1%
TINNED/CANNED BEANS: Brands: Most often: Farm Girl	horz%	100 %	8,18%	21,3%	42,9%	18,5%	9,13%

From Table 5 above it can be surmised that certain food categories have more of a positive green perception than others. For example, the market leading hot tea premium brands like Five Roses, Freshpak, Glen and Lipton have a positive bias and appeal to Green Supporters, whilst Joko a more mass brand that appeals to Green cynics. It is also noteworthy that in the hot tea category Five Roses and Lipton have more of a premium price strategy and Lipton makes sustainability claims on their packaging. Looking at the next food category of margarines and spreads, all of the brands appeal to mostly Green Cynics except that of Flora margarine which appeals mostly to Green supporters. Flora positions itself around heart health, so it can be assumed that this utopian brand

positioning has contributed to the positive green sentiment for Flora, which is unique to this food category.

Sugar and artificial sweeteners have shown mixed results of either positive, negative or no significant green bias. The rice and couscous category also shows a mixed result of green appeal, with the two market leading brands having differing levels of appeal, i.e.: Aunt Caroline rice having a Green Supporter appeal and Tastic rice has a Green Cynic appeal.

Cold breakfast cereals as a category fall mostly in the Green Supporter category with the majority of the brands in this category displaying the same bias. Hot breakfast cereals are also a preference amongst Green Supporters with a bias for the hot oat brands being Green Supporter driven with the mabele, miele- meal, and other hot porridge brands not showing any significant green affinity.

Instant coffee as a category has a mixed view with the top brands showing opposing green consumer support, i.e.: Frisco having Green Supporter appeal and Ricoffy having a Green Cynic appeal. In terms of tinned food, the tinned fish category shows a mixed result with respect to the market leader having a Green Cynic appeal whilst the other top two brands having more Green Supporter appeal. Canned baked beans show a similar mixed view between Green Supporters and Green Cynics. Canned food might also have consumer pre conceptions as it is well known that the actual canned packaging format has an impact on environmental waste.

In summary there is a significant green neutral bias towards all food categories, however removing the neutral bias it can be ascertained that food categories and perceptions of the appeal of brands to the level of green consumerism depends on the particular food categories. Differing food categories have a different green appeal, and the brands within them tend to follow suit, unless specific brand green messaging drives have been done. Having summarised the above, certain food categories have a more green appeal than others.

H2B: THE RELATIONSHIP BETWEEN LIFE VALUES AND WILLINGNESS TO PURCHASE GREEN PRODUCTS IS MODERATED BY PRICE OF GREEN PRODUCT

In evaluating H2b the study refers to the green life value statement 'I would be prepared to pay more for environmentally friendly products' and rank the level of agreement with this statement directly to the green consumers in Table 6. The blocks are shaded in Table 6 are indicative of a heat map of level of positive or negative sentiment results per sub category.

Table 6: Green Life Value statement Agreement for Consumer willingness to pay more and Level of Green Consumerism

I would be prepared to pay more for environmentally friendly products	Elements	total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
total	**Sample**	**23346**	**2196**	**4982**	**9510**	**4534**	**2124**
	vert%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
	horz%	**100%**	**9,69%**	**20,5%**	**40,5%**	**19,8%**	**9,56%**
Any Agree	Sample	12669	2057	4098	5206	1093	215
	vert%	53,3%	93,6%	81,8%	53,5%	24,1%	10,5%

I would be prepared to pay more for environmentally friendly products	Elements	total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
	horz%	**100%**	**17,0%**	**31,5%**	**40,7%**	**8,95%**	**1,89%**
Any Disagree	Sample	3903	24	157	1115	1323	1284
	vert%	17,2%	1,05%	3,26%	12,3%	29,3%	59,4%
	horz%	**100%**	**0,59%**	**3,88%**	**28,9%**	**33,7%**	**33,0%**
Definitely Agree	Sample	5064	1600	1862	1341	231	30
	vert%	21,5%	73,6%	37,5%	13,7%	4,80%	1,79%
	horz%	100%	33,2%	35,7%	25,8%	4,42%	0,80%
Definitely Disagree	Sample	1249	1	48	308	336	556
	vert%	5,57%	0,03%	0,94%	3,32%	7,29%	27,1%
	horz%	100%	0,04%	3,47%	24,1%	25,9%	46,5%
Neither Agree nor Disagree	Sample	5980	109	670	2924	1754	523
	vert%	25,8%	5,05%	13,7%	31,1%	37,8%	25,2%
	horz%	100%	1,90%	10,9%	48,8%	29,0%	9,35%
Not Applicable	Sample	794	6	57	265	364	102
	vert%	3,74%	0,33%	1,15%	3,09%	8,85%	4,89%
	horz%	100%	0,85%	6,31%	33,4%	46,9%	12,5%
Tend to Agree	Sample	7605	457	2236	3865	862	185
	vert%	31,8%	20,0%	44,4%	39,8%	19,3%	8,73%
	horz%	100%	6,10%	28,6%	50,7%	12,0%	2,62%
Tend to Disagree	Sample	2654	23	109	807	987	728
	vert%	11,6%	1,02%	2,32%	8,97%	22,0%	32,3%
	horz%	100%	0,85%	4,08%	31,2%	37,4%	26,5%

Table 6 confirms that overall 53% of consumers are willing to pay more and have indicated they are in agreement with the statement generally with choosing the 'Any Agree' option, and this summary finding is a key theme encompassing the basis for this research. Further delving into this 'Any Agree' category is driven by mostly Neutral consumers however the combined amount of positive green consumers are 48,5% including Green Supporters and Engaged Greens, who are driving the positive result. The 'Definitely Agree' statement has overall 21,5%, 'Any Agree' has 17,2%, and 'Tend to Agree' has 31,8% total contributions in agreement with the statement driven by the Engaged Greens and Green Supporters. Green Cynics are the ones who are responsible for rejecting the statement on the 'Tend to Disagree' and 'Definitely Disagree' response

options. This is also a powerful insight as it confirms that those who reject the statement already have a negative view on green lifestyle values and statements.

Figure 9 below is a correspondence map with the horizontal axis depicting the level of green consumerism and the vertical representing the level of agreement to the key green lifestyle statement 'I would be prepared to pay more for environmentally friendly products'.

Figure 9: Correspondence Map of the statement 'I would be prepared to pay more for environmentally friendly products' and Level of Green consumerism

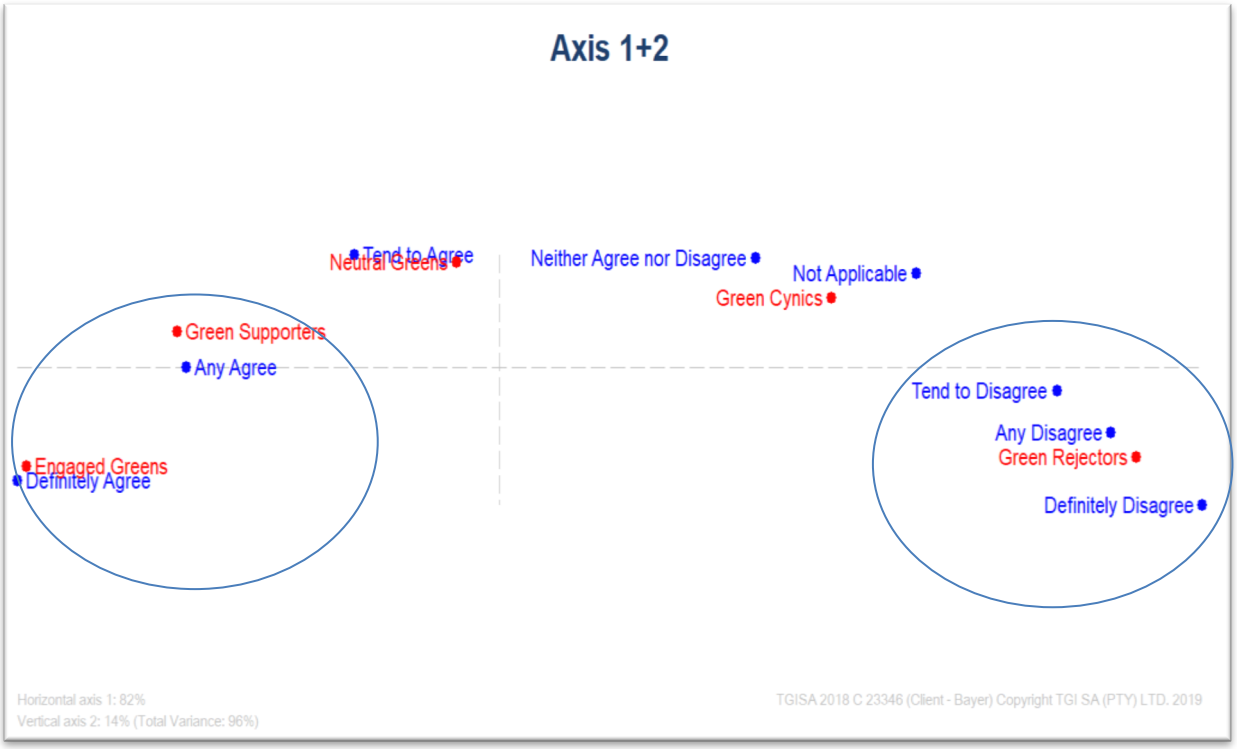


Figure 9 serves to confirm there positive relationship between positively greens, i.e.: Green Supporters and Engaged Greens, to general 'Any Agree' and 'Definitely Agree'. Conversely the relationship is also depicted with Green Rejectors to general disagreement with 'Any Disagree', 'Tend to Disagree', and 'Definitely Disagree'.

Table 7 provides further detail on Figure 7, on the level of agreement to the core statement 'I would be prepared to pay more for environmentally friendly products' , with the key Mass, Inertia and Distance statistics. General disagreement with the 'Any Disagree metric' has the highest level of inertia, following in close second with the 'Definitely Agree' metric. 'Definitely disagree' has the highest distance measured, which is in line with expectations, as they have rejected the core statement.

Table 7: General Statistics of the statement 'I would be prepared to pay more for environmentally friendly products' and Level of Green consumerism

#	Label	Key	Mass %	Dist	Inertia %
1	Any Agree	R1	30.34%	.2869	14.37%
2	Any Disagree	R2	12.12%	1.1425	22.85%
3	Definitely Agree	R3	15.11%	.8482	21.16%
4	Definitely Disagree	R4	4.45%	1.7525	12.88%
5	Neither Agree nor Dis	R5	12.99%	.3660	7.85%
6	Not Applicable	R6	2.11%	.8575	2.98%
7	Tend to Agree	R7	15.22%	.2489	6.25%
8	Tend to Disagree	R8	7.66%	.9221	11.66%

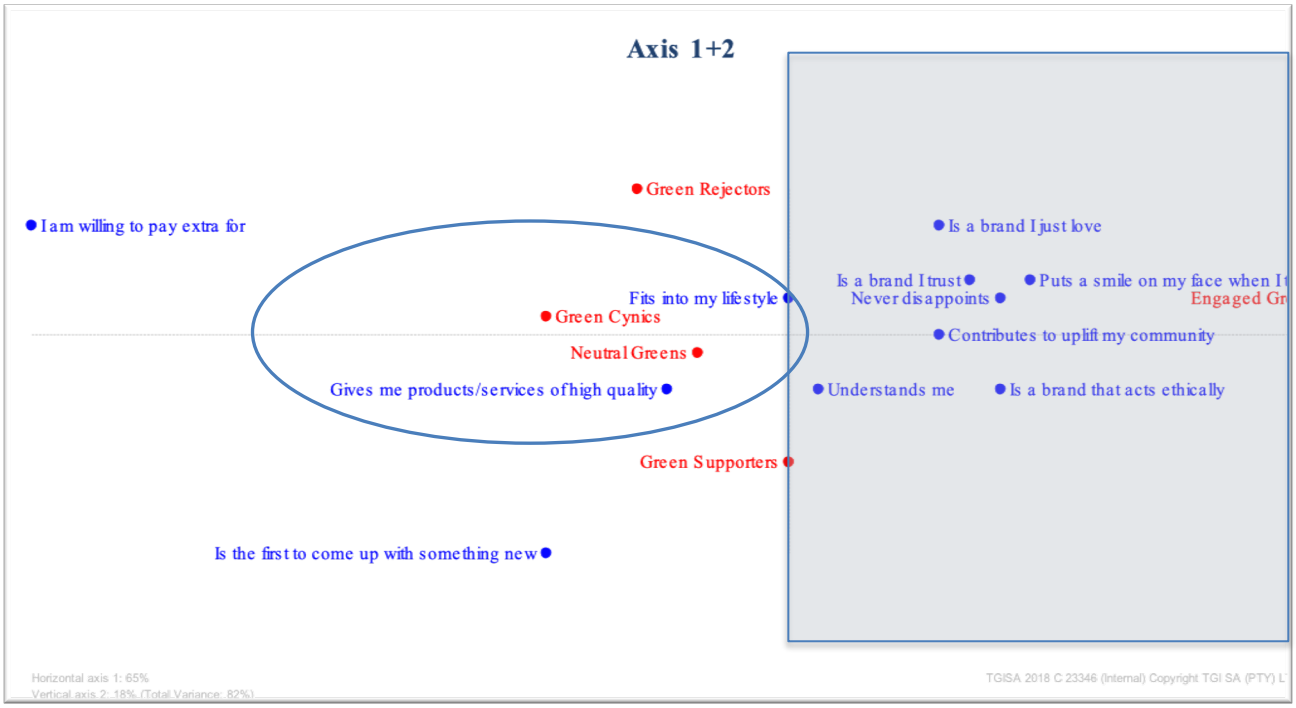
In summary positive green consumers are willing to pay more for green product offerings whilst green rejectors are unwilling to do so. This confirms the hypothesis that the relationship between life values and willingness to purchase green product is moderated by price.

H2C: THE RELATIONSHIP BETWEEN LIFE VALUES AND WILLINGNESS TO PURCHASE GREEN PRODUCTS IS MODERATED BY LEVEL OF BRAND LOYALTY OF AN INDIVIDUAL

Following from hypothesis H2b the study established that consumers are willing to pay more for green brands, and brand loyalty is closely related to brands I love, and pro green consumers have shown an affinity towards positive green lifestyle variables. Table 3 previously identified Green Lifestyle loyalty statements in which consumers that are pro green gravitate towards positive green statements regarding their brand choice, favouring the green alternative. Previously presented data also served to confirm loyalty from Figure 8 depicting a relationship between Green Supporters, Engaged Greens, Virtuous consumers and the key life stage statements related to worrying about pollution, wanting all packaging to be recycled, owning the consumer burden to recycle, WTPM for environmentally products.

As a further indicator of brand loyalty, the study represents the TGI dataset (2019) standard brand loyalty statements within a correspondence map presented in Figure 10 below. Figure 10 below serves to confirm that Engaged Greens have an affinity towards, trust, brands that act ethically, brand love, community upliftment, and we have clustered the relationship closeness with the blue block shading on Figure 10 below. Also of interest is the relationship closeness between Green Cynics, Green Neutrals and the statements ‘Fits into my lifestyle’ and ‘Gives me products of high Quality’.

Figure 10: Correspondence Map of Level of Green consumerism and Brand Loyalty statements



Further delving into the level of agreement of disagreement into the loyalty statements, Table 8 is presented below. Engaged Greens are positively agree with the statements 'Puts a smile on my face when I think about it' and 'Fits into my lifestyle'. Overall Table 8 depicts that there is more agreement with the 'Any Agree' factor towards the statements across the green consumer groupings, than any noteworthy disagreement towards the statements depicted in the second section of the table with the 'Any Disagree' data.

Table 8: Brand Loyalty statements, agreement vs disagreement level and Level of Green Consumerism

	Elements	Total	Engaged Greens	Green Cynics	Green Rejectors	Green Supporters	Neutral Greens
Total	**Sample**	**23346**	**2196**	**4534**	**2124**	**4982**	**9510**
	vert%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
	horz%	**100%**	**9,69%**	**19,8%**	**9,56%**	**20,5%**	**40,5%**
ANY AGREE							
Fits into my lifestyle	Sample	17902	1808	3343	1473	4020	7258
	vert%	75,7%	80,9%	72,4%	69,0%	79,7%	75,7%
	horz%	100%	10,4%	18,9%	8,71%	21,6%	40,5%
Contributes to uplift my community	Sample	15141	1551	2797	1252	3443	6098
	vert%	64,2%	70,0%	60,2%	58,6%	68,7%	63,8%
	horz%	100%	10,6%	18,6%	8,73%	21,9%	40,2%
Is a brand I just love	Sample	17505	1787	3241	1425	3918	7134
	vert%	73,9%	80,5%	70,1%	67,3%	77,5%	74,1%
	horz%	100%	10,6%	18,8%	8,70%	21,5%	40,5%
Never disappoints	Sample	17198	1746	3186	1397	3885	6984
	vert%	72,4%	78,6%	68,3%	65,0%	76,3%	72,8%
	horz%	100%	10,5%	18,7%	8,58%	21,6%	40,6%
Understands me	Sample	17727	1792	3285	1452	4033	7165
	vert%	74,7%	80,3%	70,6%	67,4%	79,8%	74,5%
	horz%	100%	10,4%	18,7%	8,62%	21,9%	40,3%
Puts a smile on my face when I think about it	Sample	18402	1881	3396	1519	4126	7480
	vert%	77,6%	85,0%	74,1%	70,0%	81,8%	77,3%
	horz%	100%	10,6%	18,9%	8,61%	21,6%	40,3%
Is a brand I trust	Sample	17608	1822	3294	1435	3918	7139
	vert%	74,2%	81,4%	71,3%	66,8%	77,8%	73,7%
	horz%	100%	10,6%	19,0%	8,61%	21,5%	40,2%
Is a brand that acts ethically	Sample	17318	1780	3238	1407	3920	6973
	vert%	73,3%	79,8%	70,2%	65,6%	78,2%	72,5%
	horz%	100%	10,6%	19,0%	8,57%	21,9%	40,0%
Gives me products/services of high quality	Sample	18094	1829	3403	1485	4048	7329
	vert%	76,1%	80,8%	73,2%	68,6%	80,4%	76,1%
	horz%	100%	10,3%	19,0%	8,62%	21,6%	40,4%
I am willing to pay extra for	Sample	17513	1683	3354	1494	3872	7110
	vert%	73,9%	75,6%	72,4%	68,3%	76,8%	74,0%
	horz%	100%	9,92%	19,4%	8,84%	21,3%	40,5%
Is the first to come up with something new	Sample	14217	1405	2646	1155	3246	5765
	vert%	59,7%	62,4%	56,6%	53,0%	64,1%	59,8%
	horz%	100%	10,1%	18,8%	8,50%	22,0%	40,5%
ANY DISAGREE							
Fits into my lifestyle	Sample	2295	181	512	293	385	924
	vert%	10,4%	8,71%	11,9%	14,2%	8,32%	10,2%
	horz%	100%	8,12%	22,7%	13,1%	16,4%	39,7%
Contributes to uplift my community	Sample	3696	293	781	407	653	1562
	vert%	16,1%	14,0%	17,6%	19,5%	13,1%	16,5%

	Elements	Total	Engaged Greens	Green Cynics	Green Rejectors	Green Supporters	Neutral Greens
	horz%	100%	8,42%	21,7%	11,6%	16,7%	41,6%
Is a brand I just love	Sample	2051	132	462	307	347	803
	vert%	9,11%	6,26%	10,8%	14,4%	7,03%	8,79%
	horz%	100%	6,67%	23,4%	15,1%	15,8%	39,1%
Never disappoints	Sample	2265	158	481	315	355	956
	vert%	10,5%	7,73%	11,5%	15,8%	8,07%	10,6%
	horz%	100%	7,16%	21,8%	14,5%	15,8%	40,8%
Understands me	Sample	1953	134	447	273	319	780
	vert%	8,78%	6,41%	10,5%	13,6%	6,63%	8,44%
	horz%	100%	7,08%	23,8%	14,8%	15,5%	38,9%
Puts a smile on my face when I think about it	Sample	1794	116	387	276	297	718
	vert%	8,23%	5,16%	9,23%	13,8%	6,43%	8,08%
	horz%	100%	6,07%	22,2%	16,0%	16,0%	39,7%
Is a brand I trust	Sample	1993	130	431	285	313	834
	vert%	9,03%	6,59%	9,80%	13,1%	6,77%	9,42%
	horz%	100%	7,08%	21,5%	13,9%	15,4%	42,2%
Is a brand that acts ethically	Sample	1981	128	446	277	331	799
	vert%	8,91%	6,51%	10,4%	13,3%	7,11%	8,64%
	horz%	100%	7,09%	23,0%	14,3%	16,4%	39,2%
Gives me products/services of high quality	Sample	1763	120	381	266	291	705
	vert%	8,09%	6,29%	9,28%	13,0%	6,48%	7,59%
	horz%	100%	7,54%	22,7%	15,4%	16,4%	38,0%
I am willing to pay extra for	Sample	3177	313	620	350	619	1275
	vert%	14,5%	15,1%	14,4%	18,2%	13,3%	14,1%
	horz%	100%	10,1%	19,7%	12,0%	18,8%	39,5%
Is the first to come up with something new	Sample	4148	420	869	457	767	1635
	vert%	18,6%	19,6%	20,5%	22,1%	16,3%	17,8%
	horz%	100%	10,2%	21,8%	11,4%	17,9%	38,7%

Relating to the concept of loyalty, Figure 11 and Table 9 below which provides details consumer shopping behaviour as an insight onto their stance on loyalty and ranked by the level of green consumerism that they fit into. Table 9 shows that most shoppers were the main shopper for their household, having a female bias, and 35% in control of 80% and above of what product is purchased. Following the same trends as depicted in earlier data, Table 9 shows a large number of Neutral Greens followed by Green supporters, and then Green Cynics.

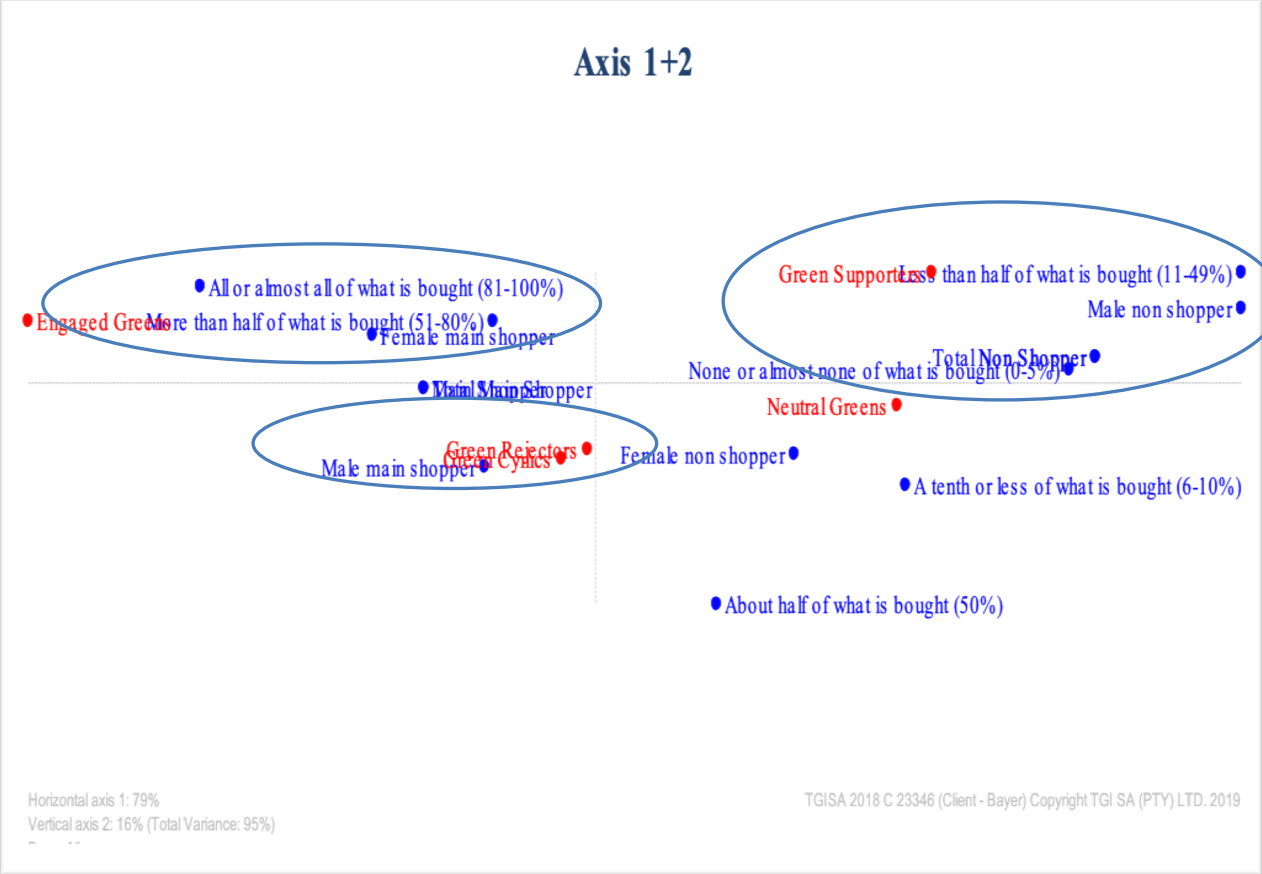
Table 9: Shopper Demographics, habits and Level of Green Consumerism

	Elements	total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
Total	**Sample**	**23346**	**2196**	**4982**	**9510**	**4534**	**2124**
	vert%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
	horz%	**100%**	**9,69%**	**20,5%**	**40,5%**	**19,8%**	**9,56%**
SHOPPER DEMOGRAPHICS							
Total Main Shopper	Sample	16900	1671	3546	6810	3315	1558
	vert%	72,6%	75,8%	71,3%	71,8%	73,6%	73,2%
	horz%	100%	10,1%	20,1%	40,0%	20,1%	9,64%
Male main shopper	Sample	7192	696	1486	2918	1412	680
	vert%	31,3%	31,9%	30,1%	31,4%	31,6%	32,7%
	horz%	100%	9,86%	19,7%	40,5%	20,0%	9,98%
Female main shopper	Sample	9708	975	2060	3892	1903	878
	vert%	41,2%	43,9%	41,2%	40,4%	42,0%	40,5%
	horz%	100%	10,3%	20,5%	39,6%	20,2%	9,39%
Total Non Shopper	Sample	6446	525	1436	2700	1219	566
	vert%	27,4%	24,2%	28,7%	28,2%	26,4%	26,8%
	horz%	100%	8,56%	21,4%	41,6%	19,1%	9,34%
Male non shopper	Sample	4453	355	1019	1885	824	370
	vert%	18,5%	15,8%	19,7%	19,2%	17,7%	17,2%
	horz%	100%	8,30%	21,8%	42,1%	18,9%	8,90%
Female non shopper	Sample	1993	170	417	815	395	196
	vert%	8,95%	8,41%	9,03%	8,97%	8,76%	9,60%
	horz%	100%	9,11%	20,7%	40,6%	19,4%	10,3%
SHOPPER INSIGHTS Extent to which you personally select items							
All or almost all of what is bought (81-100%)	Sample	8313	906	1796	3247	1598	766
	vert%	35,0%	39,4%	35,3%	33,8%	34,8%	35,7%
	horz%	100%	10,9%	20,6%	39,0%	19,7%	9,74%
More than half of what is bought (51-80%)	Sample	3426	311	715	1441	658	301
	vert%	15,0%	15,5%	15,0%	15,0%	14,9%	14,5%
	horz%	100%	10,1%	20,5%	40,5%	19,7%	9,25%
About half of what is bought (50%)	Sample	5161	454	1035	2122	1059	491
	vert%	22,5%	20,9%	21,0%	23,0%	23,9%	23,0%
	horz%	100%	8,97%	19,1%	41,3%	20,9%	9,75%
Less than half of what is bought (11-49%)	Sample	2288	184	521	966	415	202
	vert%	9,89%	8,59%	10,7%	10,3%	9,03%	9,63%
	horz%	100%	8,42%	22,2%	42,0%	18,1%	9,30%
A tenth or less of what is bought (6-10%)	Sample	1349	108	289	570	252	130
	vert%	5,83%	5,30%	5,69%	6,08%	5,68%	5,95%
	horz%	100%	8,81%	20,0%	42,2%	19,3%	9,75%
None or almost none of what is bought (0-5%)	Sample	2809	233	626	1164	552	234
	vert%	11,7%	10,4%	12,3%	11,9%	11,7%	11,2%

	Elements	total	Engaged Greens	Green Supporters	Neutral Greens	Green Cynics	Green Rejectors
	horz%	100%	8,56%	21,5%	41,0%	19,8%	9,17%
Main Shopper	Sample	16900	1671	3546	6810	3315	1558
	vert%	72,6%	75,8%	71,3%	71,8%	73,6%	73,2%
	horz%	100%	10,1%	20,1%	40,0%	20,1%	9,64%
Non Shopper	Sample	6446	525	1436	2700	1219	566
	vert%	27,4%	24,2%	28,7%	28,2%	26,4%	26,8%
	horz%	100%	8,56%	21,4%	41,6%	19,1%	9,34%

Figure 11 below depicts the shopper habits referred to in Table 10, together with the level of green consumerism. The trends identified from the correspondence map in Figure 11 is highlighted in the blue circles below. In the upper right quadrant Figure 11 depicts the relationship between Green Supports, Selected less than half of what is bought, Non shoppers, Male non shoppers, and Neutral Greens. In the upper left quadrant Figure 11 shows the relationship proximity between Engaged Greens, Female main shoppers, All or almost all of what is bought, and more than half of what is bought. Lastly in the bottom left quadrant we see the relationship between Green Rejectors, Green Cynics and Male main shopper.

Figure 11: Correspondence Map of Shopper habits and Level of Green Consumerism



In summary the hypothesis relating to brand loyalty and the relationship with green brands WTPM is depicted with key loyalty statements. The loyalty statements that positive greens are WTPM for are that the brand selection 'fits into their lifestyle', a choice that 'makes them smile' and creates 'brand love'. For all consumers brand loyalty to the green product chosen corresponds to the brand choice meeting all their needs, not just having green benefits. The research has established that Engaged Greens and Green Supporters are the main shopper and in control of what is purchased in their households, thereby concluding that a green choice is likely to be made in a positive green household.

H2D: THE RELATIONSHIP BETWEEN LIFE VALUES AND WILLINGNESS TO PURCHASE GREEN PRODUCTS IS MODERATED BY SOCIO-ECONOMIC LEVEL OF A CONSUMER

The data reveals that 58,4% of consumers either refuse to reveal their household income or state that they do not know their household income, hence the study choose to use SEL levels as an indicator of income by encompassing the broader socio-economic class that consumers find themselves in as defined by the TGI dataset in Chapter 2 and summarised in Appendix Figure B. Table 10 serves to present the level of green consumerism in keeping with the previous data reported earlier in this chapter, in a cross tabulated format with the SEL's (TGI, n.d). Overall Table 10 depicts the relationship between higher SEL's namely 1, 2 and 3 and the higher number of positive greens reported, and conversely lower SEL's namely level 7 to level 10 tend to be more negative greens.

Table 10: Socio Economic Levels and Level of Green Consumerism

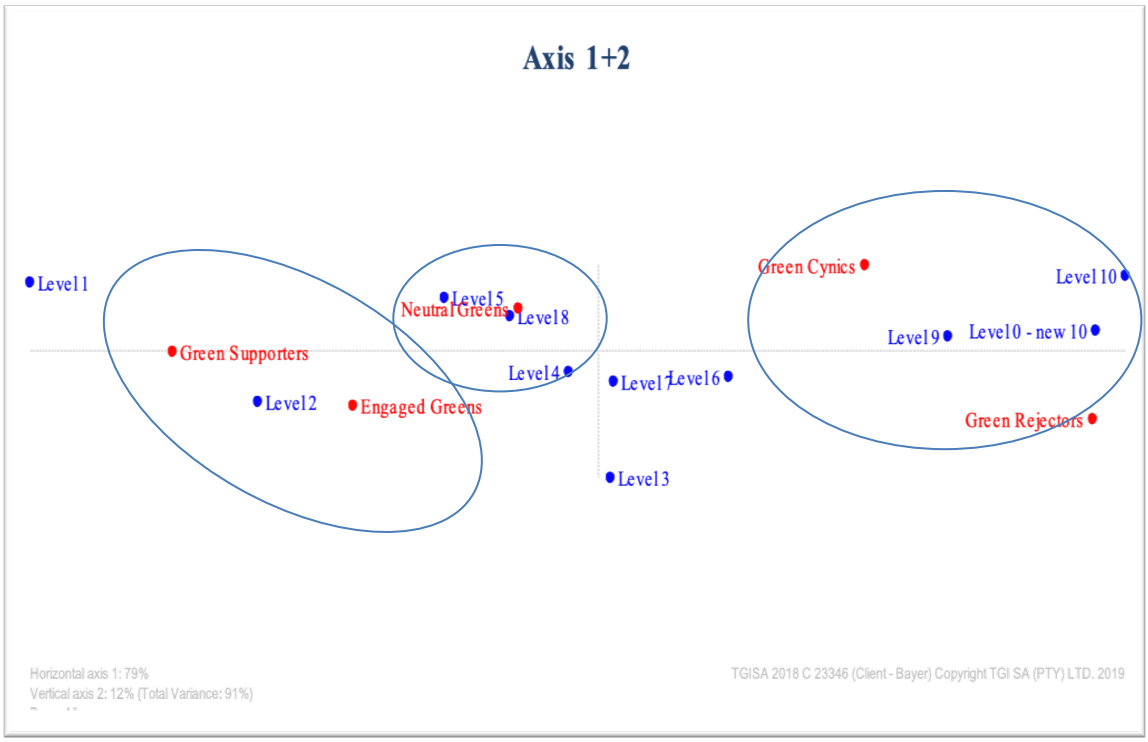
	elements	total	Green Values: Engaged Greens	Green Values: Green Supporters	Green Values: Neutral Greens	Green Values: Green Cynics	Green Values: Green Rejectors
total	Sample	30000	3207	6227	12090	5828	2648
	vert%	100%	100%	100%	100%	100%	100%
	horz%	100%	10,0%	20,0%	40,0%	20,0%	9,95%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 1	Sample	4920	722	1167	1942	815	274
	vert%	9,99%	14,8%	11,8%	9,91%	8,08%	5,71%
	horz%	100%	14,9%	23,6%	39,7%	16,2%	5,69%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 2	Sample	3611	456	819	1433	660	243
	vert%	9,98%	12,8%	11,4%	9,81%	9,24%	6,58%
	horz%	100%	12,8%	22,8%	39,3%	18,5%	6,56%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 3	Sample	3286	357	719	1336	594	280
	vert%	9,98%	10,2%	11,1%	10,1%	8,90%	9,24%

	elements	total	Green Values: Engaged Greens	Green Values: Green Supporters	Green Values: Neutral Greens	Green Values: Green Cynics	Green Values: Green Rejectors
	horz%	100%	10,2%	22,2%	40,5%	17,8%	9,22%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 4	Sample	2977	324	662	1224	553	214
	vert%	9,97%	10,4%	10,3%	10,2%	9,90%	7,96%
	horz%	100%	10,5%	20,8%	41,0%	19,9%	7,95%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 5	Sample	2692	271	599	1124	474	224
	vert%	10,0%	10,9%	10,7%	10,0%	9,10%	9,76%
	horz%	100%	10,9%	21,3%	40,0%	18,1%	9,69%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 6	Sample	2550	269	503	1031	516	231
	vert%	10,00%	10,4%	9,76%	10,1%	10,1%	9,46%
	horz%	100%	10,4%	19,5%	40,5%	20,1%	9,42%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 7	Sample	2671	238	557	1096	525	255
	vert%	10,00%	8,13%	11,0%	10,1%	9,74%	9,94%
	horz%	100%	8,14%	22,1%	40,4%	19,5%	9,90%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 8	Sample	2426	212	425	950	554	285
	vert%	10,00%	8,54%	8,94%	9,43%	11,6%	12,6%
	horz%	100%	8,55%	17,9%	37,8%	23,2%	12,6%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 9	Sample	2496	211	442	981	563	299
	vert%	9,99%	7,61%	8,28%	9,88%	11,5%	13,2%
	horz%	100%	7,62%	16,6%	39,6%	23,0%	13,2%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 10	Sample	2349	146	329	964	572	338
	vert%	9,98%	6,19%	6,64%	10,4%	11,8%	15,2%
	horz%	100%	6,21%	13,3%	41,6%	23,7%	15,2%
TGI SEL (SOCIO ECONOMIC LEVEL): Level 0 - new 10	Sample	22	1	5	9	2	5
	vert%	0,08%	0,03%	0,10%	0,06%	0,04%	0,28%
	horz%	100%	3,33%	23,6%	30,6%	8,89%	33,6%

Table 10 therefore confirms that higher socio economic households tend to have higher green values in that they are supporters and more engaged with green brands and those who are considered cynical against green brands and green brand rejecters tend to fall in the lower socio economic class. The same holds true for income groups of R12000 and above, i.e.: SEL 1, 2, and 3, being pro green and those from SEL 7 to 10 falling in the non-supporter category. This is a significant insight for the consumer with limited disposable income in South Africa.

Further analysing the data the findings on SEL and green consumerism is depicted in the correspondence map in Figure 12 below.

Figure 12: Correspondence Map of SEL's and Level of Green Consumerism



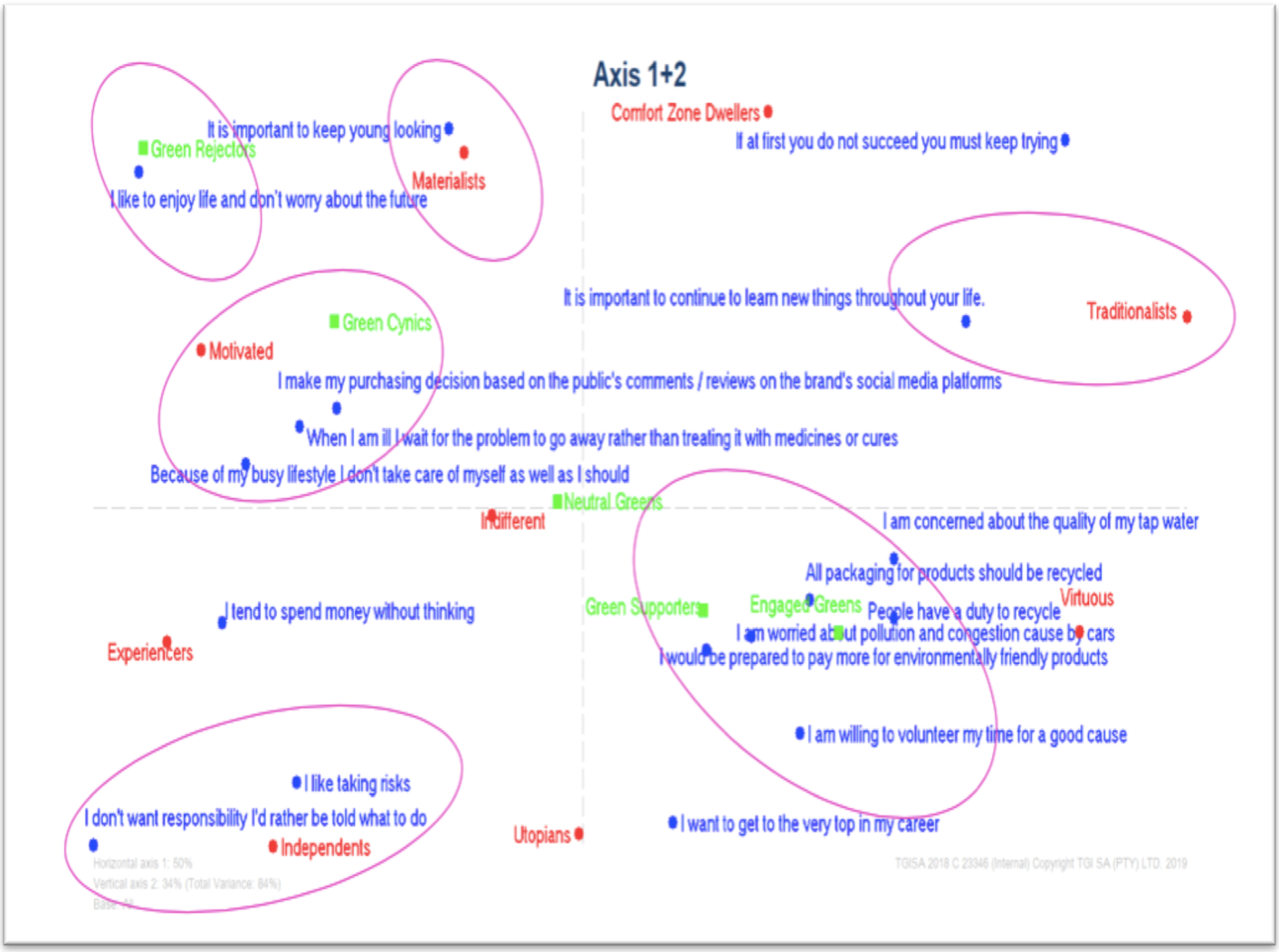
The key associations are highlighted in the circles on Figure 12, and the proximity of closeness between the variables indicates a positive relationship. We see from Figure 12 below the closeness in proximity to Green Cynics and SEL's 9 and 10. Figure 10 also shows Neutral Greens are seen to be clustered towards SEL 4, 5 and 8, and lastly Green Supporters tend to be closer in proximity to SEL 1 and 2.

Figure 12 in summary visually further depicts the relationship explored in this section between a high SEL and consumer's having a positive green bias and conversely depicts lower SEL's having negative green perception and affinity.

4.3 SUMMARY VIEW OF RESULTS

The results and hypotheses presented earlier in this chapter have impact on each other. If we take a look at the level of greenness and map this together with several of the lifestyle attributes that have been identified as moderating variables in the hypothesis statement, the combined results are fascinating. The Correspondence map in Figure 13 depicts this combined view.

Figure 13: Correspondence Map Summarizing Level of Greenness with Lifestyle Attributes



Referring to Dlamini & Richards (2020) confirmation that the proximity of key attributes to each other generally within 90 degrees of each other indicates a relationship. Figure 13 sums up the key attributes from the hypothesis depicted on one diagram in an attempt to uncover corresponding relationships. Figure 13 shows positive greens falling in the bottom right quadrant and having relationships with several lifestyle statements and being within 90 degrees of virtuous consumers. The specific statements that positive greens were shown to relate to are ‘I would be prepared to pay more for environmentally friendly products’, ‘All packaging for products should be recycled’, ‘People have a duty to recycle’, ‘I am willing to volunteer my time for a good cause’.

The top left quadrant of Figure 13 depicts negative greens with both rejectors and cynics, having a close relationship to materialistic individuals and being motivated. The key statements. This finding is key in that the implication is that self-progression to negative greens comes before sustainable choices. Other associations noticed are that of independents and an aversion to responsibility and risk takers. The other association noticed is that of traditionalist consumers to having a sense of wanting to learn new things.

The results presented in chapter 4 serve to qualify the data obtained specifically relating to each hypothesis variable. In summary of the hypothesis outcomes, Table 11 summarizes these findings and the overall relationship between the variables, with succinct comments.

Table 11: Hypothesis Results Summary

	Hypothesis & Key variables	Relationship summary	Comments
H1	**H1:** Life values of individuals will influence their willingness to purchase green products	Hypothesis confirmed as a positive relationship between the variables	Above 30 years and between 15-17 years are pro green and as education level increase's they become positively green. Pro green consumers respond positively to pro green lifestyle statements.
H2 a	**H2a:** the relationship between life values and willingness to purchase green products is moderated by product categories	Hypothesis confirmed as a positive relationship between the variables	Certain food categories have a more green appeal vs others.
H2 b	**H2b:** the relationship between life values and willingness to purchase green products is moderated by price of green product	Hypothesis confirmed as a positive relationship between the variables	Key decision hypothesis and the Main hypothesis for the basis of this research. Positive green consumers tend to lean towards agreement with the WTPM statements and negative greens tend to reject it.
H2 c	**H2c:** the relationship between life values and willingness to purchase green products is moderated by level of brand loyalty of an individual	Hypothesis confirmed as a positive relationship between the variables	Positive relationship between Engaged Greens and loyalty statements relating to trust, brands that act ethically, brand love, community upliftment. Whilst Green Cynics, Green Neutrals relate to the statements 'Fits into my lifestyle' and 'Gives me products of high Quality'.
H2 d	**H2d:** the relationship between life values and willingness to purchase green products is moderated by socio-economic level of a consumer	Hypothesis confirmed as a positive relationship between the variables	Positive Greens tend to be in higher SEL groupings and Negative Greens tend to be in lower SEL's.

These overall results summary overview brings chapter 4 results presentation to a close.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1. INTRODUCTION

The overall research objectives were in the territory of linking consumer willingness to choose green products and delving into the moderating life stage factors that shape their values. Key life values explored are product categories, brand loyalty, SEL, HH income and price of the green product choice. Revisiting the key research objectives and questions, set forth in Chapter 1, we link them with the findings presented in chapter 4.

Expanding on key overall themes from Chapter 4, a pivotal discovery was that positive greens contributed 30,19% and negative greens with 29,36%. The majority at 40,5% were green neutral. Converting those neutral greens to green positives are key in getting South Africa to have a green mindset in purchasing choices, and education is key for this. Taking communication as a route to convincing consumers to have a green mindset, companies and brands will have to prove to customers that delivery on key benefits and functionality of the product meets expectations, layering these with sustainable messaging benefits.

Another key overall theme is the core assumption that willingness to pay more is a factor associated with green product choices, and this hypothesis was subsequently proven in this research. However if green product choices were more accessible and did not have a perceived higher price point, the reasoning is that more consumers would be will be willing to convert, assuming that the key quality benefits are met. Imagine a marketplace where competitor products that have similar product benefits are selected

based on the differentiating green claim benefit. In my opinion this is the route to sustained competitive advantage for brands of the future to succeed.

The age groups showing a positive green stance were above 30 years old and millennials predominantly between 15 -17 years. This is important as South Africa has a young population and millennials are key influencers, hence maintaining the green awareness as they age will be important to further this relationship with green brand choices.

Education levels were also key as those with an above grade 10 education were more likely to be positive greens. This point again emphasis the importance of communication and education on green benefits and importance. Communicating green benefits is important for the product but so too is a consumer's understanding of what exactly those green benefits mean to them and the level of green benefits offered. For example, recycling instructions on a package of tea bags vs another pack of teabags that claims to have sustainable sourcing with no harm to animals or deforestation, denotes different levels of added green benefits. Perhaps a South African green food standard should be established so that levels of green benefits can be standardized and easier for the consumer to compare.

Consumer life stages were used as a proxy to indicate consumer perspective on green life values. Positive green have shown an affinity for pro-green lifestyle statements and most importantly the statement 'I would be prepared to pay more for environmentally friendly products'. Positive greens have also asserted a propensity to make lifestyle choices to protect the environment, which is progressive and shows a potential trend

beyond environmental awareness to action. Green rejectors having been found to be more materialistic and motivated in pursuing self-goals. This is key in that the implication is that green product choices are perceived as utopian which juxtaposes the self-fulfilling motivators for negative greens.

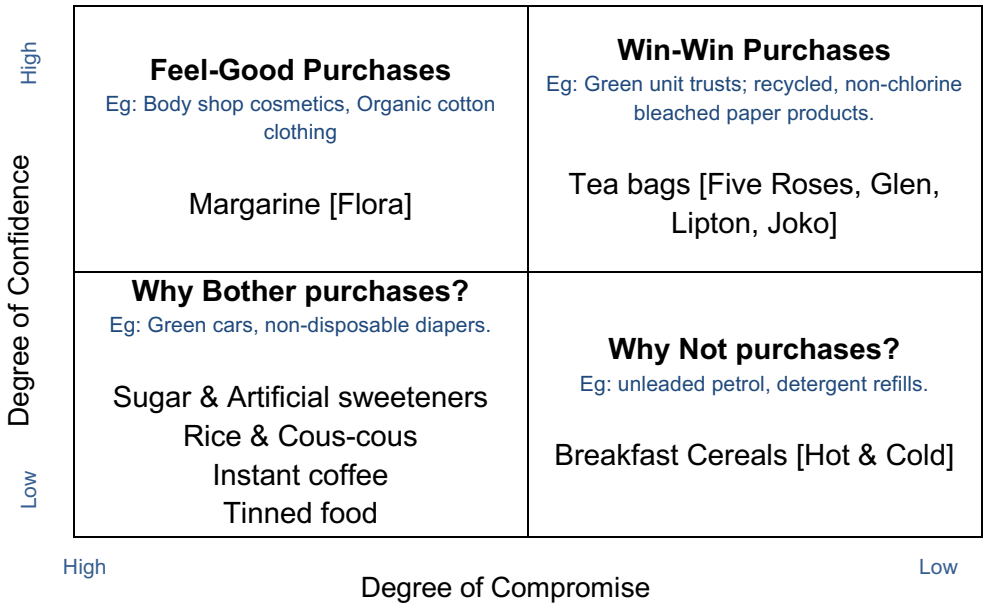
Chapter 5 further explores the key discussions stemming from the research and then states the conclusions and recommendations.

5.2 CONTRIBUTIONS OF THE STUDY TO LIFE VALUES AND GREEN PRODUCTS

The TGI data (2019) extracted used Green Loyalty Life style statements as indicators for consumers perspectives on their life values. By looking at the data presented for hypothesis 1, it was derived that positive greens and utopians had a stronger inclination to want to make green lifestyle choices enabling greener choices. Conversely the negative green rejected the green loyalty lifestyle statements and showed both an aversion to green products as well as statements alluding to green behavioural changes to help the environment. This is key as it shows that South Africans have to be convinced about more than just the green benefits but motivated by strong reasons to change their behaviour in the case of negative greens. Again the majority of the TGI dataset (2019) were green neutral, so converting them to positive greens is key to entrenching positive green values in the interest of effecting positive behavioural change.

Certain product categories have been shown to have more of a green bias, for example perceived healthier food options are seen to be green and have a stronger positive green choice. Looking at the results for the food categories explored in hypothesis 2, we can further expand on the Peattie (2001) categorisation of green purchasing perceptions presented in chapter 2 with the adapted model in figure 14 below.

Figure 14: Food brands and the 'Green Purchase Perception Matrix'. Adapted from Peattie (2001).



The food categories explored in this research have been classified in figure 14 with Flora falling into the 'Feel-good purchases' due to its strong green affinity driven by a brand positioning of a healthy, heart smart lifestyle. The tea bags category and the top brands within in have shown a positive green bias and are considered to be a 'Win-win purchase' in figure 14, as it is easy to recycle and some brands have sustainable sourcing claims. Figure 14 classifies breakfast cereals as 'Why not purchases', as this category has positive green support and could be seen as a healthier option driving the

food choice, and is already in the positive green consumers current breakfast routine requiring no consumer compromises.

Figure 14 classifies the sugar and artificial sweeteners category, rice and cous-cous, instant coffee and tinned food as ‘Why bother purchases’, as these categories have reported mixed green results in chapter 4, alluding to the fact that none of these categories and the brands within them have stood out positively on green benefits and for any higher end green products in this category, a high degree of compromise would be needed.

5.3 CONTRIBUTIONS OF THE STUDY WITH GREEN BRANDS & THE WTP CONCEPT

The willingness to pay more factor for a green product was used as the moderating variable to explore how the different green consumers respond to price of green food. Positive greens have agreed with the WTPM statements whilst green rejectors did not agree and green cynics were indifferent. This is significant as the key variable of WTPM of this research has yielded results that are in-line with those of other emerging market green studies in India, Indonesia and Thailand who have reported similar findings with respect to WTPM and green consumerism (Singh & Pandey, 2018; Setyawanan, Noermijati, Sunaryo & Aishja, 2018; Maichum,Parichatnon & Peng, 2016).

There are two further aspects to the concept of positive greens and WTPM. Firstly ensuring that more consumers become green with increased awareness, communication and education is key to gaining a greater penetration of green food amongst a wide consumer base, across all food categories. South Africa is an inherently younger market and referring back to the demographic breakdown of green consumers in chapter 4, we know that the influencing power of millennials and seeding green benefits and messaging at a young age will help to ensure the next generation is more green than the previous.

Secondly the perception that a green food product is more expensive and consumers are evaluating their propensity to pay more for green food, is an area that food marketers can address with respect to communicating comparable pricing on green food offerings and from a manufacturing level making green food affordable for all.

Brand loyalty was also found to have an impact based on the results presented in chapter 4 specifically that as expected Engaged Greens showed a positive relationship with the loyalty statements relating to trust, brands that act ethically, brand love, and community upliftment, furthering our understanding that they tend to act ‘green’ and in a utopian manner where possible. The interesting relationship between Green Cynics and Green Neutrals relate to the statements ‘Fits into my lifestyle’ and ‘Gives me products of high Quality’, which is key.

This shows us that in alignment with the literature presented in chapter 2, expected brand functional benefits especially quality is critical to product choice. Specific similarities can be found by affirming the literature presented in Chapter 2, relating to

the fact that consumers still want green offerings to delivery on efficacy and quality needs (Jaju, 2015; Maichum, Parichatnon, & Peng, 2016). Therefore layering the added benefits of being a green product and still delivering the key quality and functional benefits is key to converting Green Neutrals and Negative Greens into acting pro Green.

The last factor explored in relation to green brands and WTP was that of SEL. The results presented in chapter 4 affirmed that within the higher socio economic levels of consumer HH's, is associated with a high level of willingness to purchase green products. This proven hypothesis was also underpinned with the fact that higher socioeconomic level HH's have more disposable income and are associated with a high education level, implying that green awareness would be higher. The research proves that TGI data (2019) classification of income groups SEL 1, 2, and 3, are Positive Greens and those from SEL 7 to 10 fall in the green non-supporter category.

The green stance of HH's is also key for the surrounding individuals that these households influence, as well as the youth market who make up the majority of the South African population. Ultimately in order for green product purchasing to become the norm, this study has identified that converting the Green Neutrals is key, and a key route to achieve this conversion is with Positive Greens.

5.4. LIMITATIONS

This study focused on green food categories that are common to most households. Exploring a wider set of food categories could yield varying results. Organic food was

also not explored as a separate food benefit, and the relationship between organic food and green food was not stipulated.

This study focused on results relying on the Ask Afrika TGI group data (2019). This data set is robust and continuous benchmarking study of consumers. The gap identified is that consumers in South Africa were reluctant to share their exact HH income levels, so this study has used SEL's as a proxy to determine HH income lifestyles. In future once the SA population is more willing to share personal income data, this can be used to replicate this study.

The results and statistical method used to calculate the findings was correspondence analysis looking at the relationship between multiple variables, calculated via the TGI data system and with assistance from the statistical team at the Ask Afrika TGI group. Another standard statistical method for calculation most popular in academic research studies, would be to look at correlation analysis measuring the relationship between each variable separately.

5.5. RECOMMENDATIONS FOR FUTURE RESEARCH

The literature review development highlighted the importance of green brand offerings and increased consumer interest towards brands with a green value proposition (Muposhi & Dhurup, 2017; Maichum, Parichatnon & Peng, 2016). As the earths limited natural resources highlighted by the United Nations Secretary General continue to steer consumers towards looking at their environmental footprints, consumers are increasingly aware of the impact of their product choices (Guterres, 2018; Kalburan & Hasiloglu, 2018). As established, green marketing and green product offerings are on

the rise, and within the South African context is a relatively new area to be explored, providing a rich territory for academic research, furthering recent local academic work (Govender & Govender, 2016; Dubihlela & Ngxukumeshe, 2016) as well as adapting identified key studies conducted in similar emerging market countries like that of India, Indonesia and Thailand (Singh & Pandey, 2018; Setyawanan, Noermijati, Sunaryo & Aishja, 2018; Maichum,Parichatnon & Peng, 2016).

The relationships between education levels and employment status has been identified in this research showing relationships to green brand purchasing and is an area for further research, with the current changing economic status of south Africa, it will be interesting to see this trend evolve over time.

Linking green brands to increased financial profits vs non green brands and measuring the incremental income that can be attributed to green brand claims is an interesting area and would directly assist the manufacturing sector to quantify the opportunity cost of having green offerings vs not providing green solutions. Pricing elasticity of green brands vs traditional brands warrants further research as it would assist with green brand pricing strategies within industry as well as profit and volume forecasting projections based on consumer demand.

Delving more into green categories outside of the realm of predominant food categories. Luxury goods, personal care products, service industry offerings like banking or car rentals, are suggestions for similar investigations looking at green offerings vs traditional products.

With the recent Covid-19 Global pandemic, further research into the changes of attitudes and purchasing choices related to green consumerism would be a territory to understand for future studies.

Extending this research into the broader African space, and looking at adjacent markets like East Africa, West and Northern African is key as most companies have an Africa growth agenda and opportunities for green offerings within this space should be investigated especially with regard to consumer perceptions of affordability and household income levels.

5.6. CONCLUSIONS

Sustainability and green product solutions are important and will continue to remain a business priority in future as the environment demands it. Businesses that can find a way to offer green benefits whilst maintaining product quality expectations, will be answering a definite consumer need. Ultimately food and brand preferences exist within the realm of this study, but layering green benefits and underpinning them with the expected taste, quality and functional benefits is a must for exceeding the customer experience.

Offering said green products at an acceptable price for the consumer will also be a key factor for success of green offerings to make green choices affordable to more SEL groups. Education about the benefits about green brands to individuals and to the environment at large is important for awareness as we know that more informed consumers tend to be green advocates. The communication of individual benefits related

to the ‘self’ will be an important message for Negative greens who are more individualistic, whilst the community and the environmental benefits will be important to Positive and Neutral greens who tend to be more utopian. Focusing on converting the large number of Neutral greens to Positive greens is our best chance for making green product choices in the food industry more commonplace.

In conclusion, remembering The United Nations Secretary General’s speech on climate change and the earth’s dwindling resources highlights the need for sustainable and green consciousness at every level (Guterres, 2018). Humans growing need for products, services and experiences that fulfil their needs places pressure on the environment and the scarce resources available. Every action taken in future will have to consider the green impact, and ultimately those companies that provide these green products and services will be more profitable and build brands with a green purpose, ultimately translating to appeal with consumers as they become more green aware.

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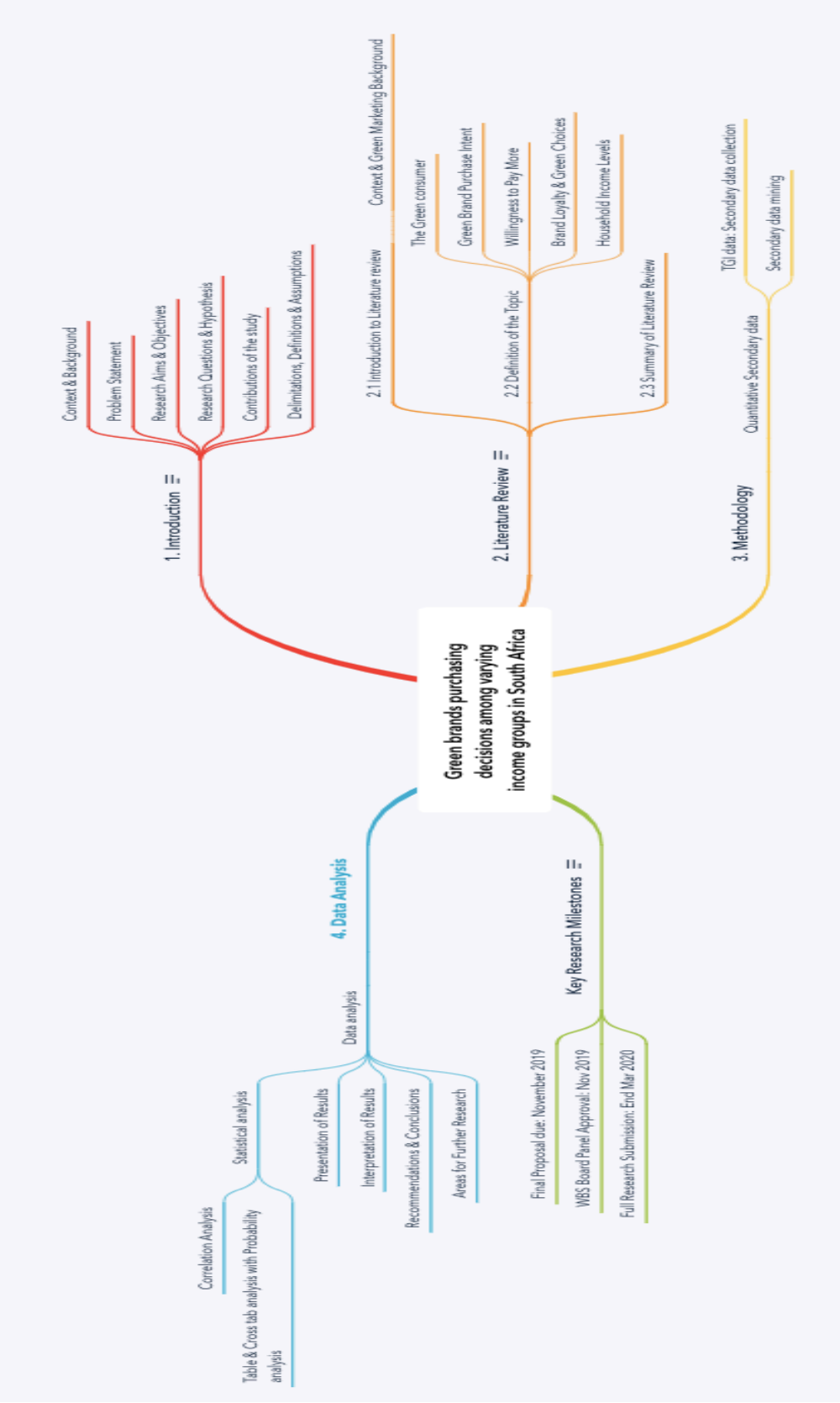
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APPENDIX

Appendix Figure A: Research Layout and Presentation



Appendix Figure B: Socio-Economic levels. Source TGI (n.d).



Appendix Figure C: Wits Ethical Waiver



UNIVERSITY OF THE WITWATERSRAND JOHANNESBURG

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)

Registration number: REC-101114-044

20 March 2020

Re: Ms. Kirana Ramsunder (2233779)
Waiver letter number: HRECNMW20/04/05

To whom it may concern,

Ms. Ramsunder is currently registered as a Masters student at the Wits Business School at the University of the Witwatersrand, Johannesburg. This letter is to confirm that, at the time of writing, Ms. Ramsunder does not need ethical clearance for her Masters study entitled *'Green brands purchasing decisions among varying income groups in South Africa'*. This decision has been reached based upon a description of the project supplied by Ms. Ramsunder to the University Human Research Ethics Committee (Non-Medical), which has been evaluated by the Chairs and Deputy Chairs. If, however, Ms. Ramsunder changes the methods of data collection and analysis for this study, this decision may no longer be valid. If such changes take place, this should be communicated to the University Human Research Ethics Committee (Non-Medical) as soon as possible. This waiver letter is valid until 19 March 2023.

Please feel free to contact me should you require any further information.

Thank you.

Yours sincerely,
S Schoeman

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