The Relative Importance of Sustainability as a Consumer Purchase Criterion within the South African Retail Industry

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ABSTRACT

Ever since its inception in 1972, the concept of Sustainability has received growing attention. However, as the burden of unsustainable business practices becomes increasingly difficult to ignore, there is a mounting expectation that businesses will act as responsible corporate citizens, take responsibility and start doing things differently. No longer is Sustainability purely a ‘nice to have’, but it is becoming a license to do business (Carter & Easton, 2011).

As a result, retailers are investing heavily into more sustainable business models, products and practices; however, the need exists to explore to what extent consumers value these investments, and whether their concern for the environment in fact translates into more sustainable purchase behaviour. Within this context, this study explores the relative importance of sustainability as a criterion in the consumer purchase decision making process, comparing Clothing and Food purchases. The objective of the study is to give retailers insights into the purchase criteria that consumers deem important, and the extent to which sustainability is valued.

Using a focus group, qualitative research was conducted to determine the key purchase criteria for both Food and Clothing, respectively. Thereafter, a quantitative study was conducted, using an online Survey tool and Adaptive Conjoint analysis, where respondents made trade off choices between purchase criteria. The data was analysed to determine the relative importance of sustainability in purchase decisions, relative to other criteria. Additionally, the differences between Food and Clothing responses were explored.

The results showed that sustainability-related factors, though considered during the purchase decision, played a noticeably less important role than ‘other factors’ such as Quality, Price and Fit. However, the results also indicated that sustainability related factors were rated as more important in Food than in Clothing. The leading purchase criteria for Clothing were, in descending order of importance, Fit, Price (i.e. value for money) and Quality; whilst those for Food were Quality, Convenience and Price. Interestingly, women rated sustainability-related criteria in Food as being significantly more important in the purchase decision than men did.
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1. INTRODUCTION

1.1 The Context

The Brundlandt Report in 1987, the Rio Earth summit in 1992, and The World Resource Institute annual report in 2005 all stated the same thing: that over-consumption, with excessive generation of pollution and waste, is placing an unsustainable burden on the environment (Peattie, 1999; Wells, Ponting, & Peattie, 2011). There is a real responsibility on the shoulders of not only consumers, but also businesses, to start doing things differently. As the scientific understanding of climate change increases, there is the growing expectation that businesses act as responsible corporate citizens, and show transparency regarding the impact of their business practices on the environment.

In 2014, The Nielsen group conducted an electronic poll of 30 000 consumers in 60 countries to ascertain whether consumers themselves care about corporate citizenship when it comes to their purchase decision. “Do consumers care with their wallets?” (The Nielsen Company, 2014). What emerged from the poll is that at the moment of truth, when making the purchase decision, consumers are heavily in favour of brands with a social purpose. Furthermore, companies are not only expected by consumers to reduce their negative impact, but additionally to make a positive social and environmental impact (The Nielsen Company, 2014). They also found that 55% of respondents were willing to pay extra for products or services from companies seen to be dedicated to positive social and environmental impact; whilst 66% of respondents wanted to work for a socially responsible company (Verschoor, 2014).

The results of the poll do have some challenges with regard to generalisability: the sample is limited to those with access to online facilities, a group of consumers likely to show high environmental sensitivity. A further limitation of the poll is that it enquired about “claimed behaviour” rather than collecting actual behavioural data. Yet it does address a key question that goes to the core of the matter: It suggests that Corporate Citizenship may not only be nice to have, but can also potentially give businesses a competitive advantage. The question relevant for Business remains: Does care actually convert to action? Early foundational research focused on getting an insight into the general underlying factors that drive and influence human behaviour. Theories such as the Theory of Planned Behaviour and Theory of Reasoned Action (Ajzen, 1991, 2001) laid early foundations. Subsequent research took these theories into our current environmental context. The extent to which the consumers’ conceptual investment in sustainability translates into related buying behaviour has attracted significant research interest. Work done by Ramirez and others suggests that although a large percentage of consumers consider
themselves to be supportive of sustainability, this does not necessarily translate into related purchase behaviour (Vermeir & Verbeke, 2006; Ramirez, 2013). Others, more specifically, have examined the particular factors that influence consumption of Environmentally Sustainable Products (ESP’s) (Young, Hwang, McDonald, & Oates, 2010; Niinimäki, 2010; Ritch, 2012; Kang, Liu, & Kim, 2013).

Understanding the drivers of the consumer purchase decision, as well as the barriers and enablers in the decision making process, is key for businesses to align their business strategies to what is important and relevant to the consumer.

1.2 Problem Statement

1.2.1 Main Problem

To determine the relative importance of sustainability as a consumer purchase criterion in the South African retail context.

1.2.2 Sub Problems

Vermeir et al (2006) suggest that the level of personal involvement of the customer in the purchase of the product affects the purchase decisions they make. At the same time, different purchase criteria and underlying psychology seem to influence buying patterns when comparing Food and Textiles. Customers perceive sustainable foods to have less exposure to hormones and antibiotics and therefore have greater potential personal health benefits (Vermeir & Verbeke, 2008); and, very differently, consumers associate Clothing with, *inter alia*, personal identity, self-expression and signalling (Chan & Wong, 2012; Niinimäki, 2010; Ritch, 2012). For this reason, there is a need to differentiate with respect to Food and Clothing in this research, and hence the sub problems have been structured as follows:

a) To gain an insight as to the differences in the relative importance of sustainability to the consumer when comparing attitudes towards purchase of Food and Clothing respectively.

b) To understand customer expectations of retailers with regard to sustainability initiatives.

1.3 Purpose and Significance of the Study

In 2010, Lubin and Esty stated in the HBR that sustainability has become *a megatrend* (Mcdonagh & Prothero, 2014, p.1186). But there is a realisation that it is more than that: It is recognised that our current levels of consumption just cannot be sustained by the planet (Mcdonagh & Prothero, 2014). This poses a significant challenge to businesses: stakeholders (these being various local and international regulatory bodies, shareholders, customers) increasingly expect businesses to address environmental and social issues. Doing, or failing to do, business “greener” can be either
the carrot or the whip and businesses ignore these issues at their peril. Sheth et al proposed that “how effectively business deals with the challenges of sustainability, will define it success for decades to come” (Sheth, Sethia, & Srinivas, 2011, p.21). Carter and Easton’s opinion is that sustainability could even be said to be “the licence to do business” in this era (Carter & Easton, 2011). The flipside of the sustainability coin is gaining insight into how the consumer in turn interacts with Environmentally Sustainable Products (ESPs). Where does sustainability, as a criterion, fall into their decision making process? And how might understanding this help encourage and stimulate greater sustainability-orientated behaviour?

This can be related by way of an example, to Woolworths in SA: Woolworths is a benchmark in the industry with regard to sustainable business practices. The company invests heavily in their ‘Good Business Journey’ which, amongst other things, involves continually increasing the percentage of their products with sustainability attributes. The Woolworths target for 2015 is that 60% of all foods and 60% of all textile products must have sustainability attributes. With this in mind, there is a need to assess the extent to which the consumer values these investments.

Building on the work already done on the topic of sustainability, the objective of this research is to determine the relative importance of sustainability in the consumer purchase decision, and determine whether sustainability is equally valued by consumers in Textiles as it might be in Foods. The work on sustainability in the South African context has often centred around reporting of sustainability measures, or the role of supply chain. There has been limited research on the topic of consumer purchase behaviour relative to Environmentally Sustainable Products. This study will give guidance to Businesses as to the factors that drive consumer purchase behaviour. It will also give insight into what South African consumers value, as well as what their expectations of retailers are, from a corporate citizenship point of view.

1.4 Scope of the Study

Woolworths is the leading General Merchandise and Foods retailer in South Africa with regard to Sustainability with their Good Business Journey. For this reason Woolworths, with their extensive customer database, was chosen as a primary source of information. Another reason for using Woolworths is that, because they are retailers of both food and textiles, one is able to research the same customer across two different retail segments and compare relative attitudinal differences and similarities across both segments. Though Woolworths actively targets a higher Living Standards Measure (LSM) customer, it attracts a significantly wider consumer base due to it being an aspirational brand in the SA context. For the purposes of this study, the scope of the study is contained to Woolworths’ customers specifically.
1.5 Assumptions and Limitations

1.5.1 Assumptions

- The consumer behaviour of customers in Cape Town is typical of the rest of SA.
- Data collected from respondents was accurate and truthful.

1.5.2 Limitations

- This research was limited to researching sustainability as a purchase criterion only in Food and Clothing.
- The sample pool was limited to the Woolworths customer database only.

1.6 Definition of terms

- **ACA**: Adaptive Conjoint Analysis
- **Conjoint Block**: A conjoint questionnaire designed with questions and responses to a specific set of purchase behaviours (such as purchase behaviour for food) would be grouped in the same conjoint block. For this particular study, two conjoint block questionnaires were developed: one for Food and one for Clothing. These blocks were designed to be comparable to each other.
- **ESP**: Environmentally Sustainable Product
- **Greenwashing**: Creating an image of being environmentally friendly or sustainable by means of unsubstantiated claims or misleading advertising about the attributes or benefits of a “green” product.
- **LSM**: The Living Standards Measure is a way of segmenting a population, or market, on the basis of Socio Economic status.
- **PCE**: Perceived Customer Effectiveness
- **PPR**: Perceived Personal Relevance
- **UCS**: Utility Constant Sum: the overall level of importance given to a specific feature. Within a conjoint block the Utility Constant Sum of all the features = 100. An individual UCS for an attribute indicates the relative importance of the feature relative to the other features (x/100). The higher the UCS, the higher the relative importance to the respondent.
- **Utility**: A measure of part worth of a feature within a conjoint study. The higher the utility rating, the higher the importance the consumer attaches to the feature.
- **WW**: Woolworths
1.7 Research Ethics
This research proposal was assessed and approved by the Graduate School of Business Ethics in Research Committee in accordance to the rules and norms of the University and Commerce Faculty.
2. LITERATURE REVIEW

In this review, the topic of Sustainability, with reference to its origin and current relevance in an increasingly complex environment, is introduced. This leads to an exploration of the extent to which consumers have been found to relate to environmentally sustainable products, processes and practices. Relevant existing research on consumer behaviour, and the factors impacting on purchase decision making in general, is examined and discussed. This is followed by a closer look at prior research that has focused on consumer behaviour specifically in the Food and Textile industries. Finally, against this backdrop, and within the context of sustainability in the South African retail environment, the aim of the current study is presented via the specific research questions posed.

2.1 Introduction to Sustainability

“Radical change is both necessary and inevitable because the present increases in human numbers and per capita consumption, by disrupting ecosystems and depleting resources, are undermining the very foundations of survival”. These prophetic words were written by Edward Goldsmith, Robert Allen and a team of colleagues in January 1972 (Hubbard, 2012, para. 2). Their work, ‘a blueprint for survival’ which was essentially a plea and action plan to make modern civilisation sustainable, inspired the 1972 UN ‘Human Environment’ Conference in Stockholm and the concept of sustainability was officially born (Shen, Richards, & Liu, 2013). Sustainability needed to address 3 things: The reality of the interdependence of human beings and their natural environment that sustains them; secondly, address the relationship between economic and social development and the protection of the environment, and thirdly the need for one global vision and universal principles that apply to all (Nature in the City as cited by Shen et al, 2013). In 2003, the World Bank echoed the same sentiment: For sustainable development to be effective, it needs to be developed around strategies pursuing economic, social and environmental gains (World Bank as cited by Vermeir & Verbeke, 2006). It is now 40 years later, and society is slowly making progress and learning. Though some researchers are pushing for more macro-institutional sustainability research and more pressure for policy initiatives (Prothero et al., 2011), there continues to be a widely acknowledged behaviour-attitude gap between consumers’ expressed positive attitudes towards supporting sustainability and their actual consumption patterns and behaviours (Prothero et al., 2011; Ramirez, 2013; Vermeir & Verbeke, 2006). Not only are the products that are consumed often non-sustainable, but so too are consumption patterns.

Sustainability, due to the very broad nature of the concept, can mean very different things to different people. In 2001, Reheul et al (as cited by Vermeir & Verbeke, 2006) defined sustainable
products as contributing to one or more of the following aspects: an **Economic** component (fair price to both producer and consumer); an **Ecological** component (care of environment, quality of life for humans and farmed animals, careful management of natural resources) and a **Social** component (being the integration of agriculture into the needs of society).

The focus of this present study is on the consumer – in particular their understanding, perceptions, and purchase behaviours in relation to sustainability. In the context of Food, packaging has received a lot of attention, with consumers seeing recycling as one of the top environmental concerns (Burrows, 2013), and yet, according to packaging manufacturers, in reality packaging accounts for only about 10% of the total environmental footprint of products. Regardless of how accurate this claim is, recycling is a tactile, deliberate action that plays into the positive self-image of the consumer as doing the right thing and helping to make a difference. However, the extent to which sustainable packaging influences a purchase decision, is minimal. According to a PWC survey in 2010, the deciding purchase criteria for consumers when it comes to purchasing Environmentally Sustainable Products (ESPs), remains Value for money, Convenience, and Quality of the product itself (PWC, 2010).

### 2.1.1 Consumer Knowledge of ESPs

With regard to consumer knowledge on the topic of sustainability, it is evident that reliable information on the products itself is needed to help drive purchase decision-making. Benefits need to be clearly communicated to allow the customer to make an informed decision (Vermeir & Verbeke, 2006). More often than not, consumer knowledge on regular farming / food production practices is weak or lacking, which means that the stated benefits of sustainable production or products has little meaning to the consumer (de Barcellos, Krystallis, de Melo Saab, Kügler, & Grunert, 2011).

In the case of clothing manufacture, the industry supply-chain is significantly more involved and murky than foods due to the complexity of various components pieces and processes in the manufacture of apparel. As a result, consumers view on sustainable fashion almost needs to be simplified to fabric type (e.g. organic cotton) or production process (non-toxic fabric dying), in order to help make a purchase decision (Beard, 2008).

### 2.1.2 Role of Marketing

At the heart of the sustainability debate lies the question regarding the role of marketing. The first obvious role is the education of the customer on sustainability, and building strong brand loyalty and brand identification. The paradox facing marketing is that sustainability is about mindful, low impact consumption, whereas marketing’s traditional objective is to create a demand, and drive
maximum consumption and turnover. Businesses are currently addressing sustainability by looking at process, sourcing, packaging etc. However, the most difficult and pivotal question should concern **how Marketing can help deliver sustainability, as a value**, in a society where excessive consumption (low quality, cheap clothing, “twofer” deals etc.) seems to be the entrenched norm. Marketing has often been on the receiving end of blame for their role in the consumption problem (Finney, 2014), but the flip side of the coin is that they can they can equally be part of the solution.

2.2 Factors that influence Consumer Behaviour

2.2.1 Early work

One of the early theorists on predicting and understanding human behaviour was Rotter who, already in 1954 and 1966, did extensive work on how behaviour in specific contexts might be correlated to a generalised locus of control (Ajzen, 1991). Often the results of these studies were disappointing. Ajzen proposed that the reason for the ‘relatively low predictive validity of attitudes and traits’ (p.180) is that aggregation, as a measure to predict a future behaviour, in a particular context is flawed. Ajzen proposed that aggregation is a better predictor of a general disposition and behaviour pattern than predicting a behaviour pattern in a specific context. From here, Ajzen’s Theory of Planned Behaviour (TPB) was formula in 1991. TPB was designed to help predict human behaviour in a specific context. The principles of the TPB is that the likelihood of particular behaviour taking place will be guided by a) the likely consequence of a behaviour (**Attitude**), b) perceptions about social pressure (**Subjective norm**) and c) the persons perception of the ease or difficulty of the behaviour of interest (**Behavioural control**) (Ajzen, 1991, p.183). These three factors affect the intention to behave in a particular manner (Kalafatis, East, Pollard, & Tsogas, 1999). Ajzen’s Theory of Planned Behaviour laid the foundations for future research on human behaviour.

2.2.2 Intrinsic Factors that might affect behavioural intentions of ESPs

Building on Azjen’s concept of TPB, Kang et al (2013) researched the factors that influence consumers attitudes, perceptions and behavioural intentions towards ESPs. They conducted a multi-national study (across the US, South Korea and China) with over 700 respondents who were students at university institutions at the time. Three factors were identified as affecting purchase intentions of ESPs as illustrated in Figure 1 below:
Perceived Personal Relevance pertains to the person’s self-identity, their values and life style: Kang found that behaviour is likely to correspond with the extent to which an idea is aligned with self-image and values. The positive relationship that exists between Consumer Knowledge of ESPs and purchase intention was noted in earlier work (Kim & Choi, 2005; Vermeir & Verbeke, 2008; D. J. Webb, Mohr, & Harris, 2008) and again observed by Kang (2013). However, Brosdahl and Carpenter (2010) researched consumer knowledge specific to the textile industry (whereas Vermeir and Verbeke focused more broadly on Foods), and found that Consumer Knowledge was indeed NOT sufficient to influence customer behaviour, but that Environmental Concern was a pre-requisite to influence behaviour (i.e. the consumer needs to be educated on the potential negative impacts of the production process; knowledge alone that something was, or was not, environmentally friendly was not sufficient to alter behaviour). The impact on purchase intention with regard to sharing of information on textiles pieces was investigated by Dickson already in 2001. Dickson studied the utility of “no sweat” labels on apparel, and found that only a small percentage of respondents would be influenced by a “no sweat” label (Dickson, 2001). This speaks to the same findings of Brosdahl and Carpenter (2010): knowledge needs to be amplified by Environmental concern to drive pro ESP behaviour.

The third variable, and the one that Kang et al found to be most significant in influencing behaviour was Perceived Consumer Effectiveness (PCE), supporting the findings of Roberts in 1996. Antil (as cited by Roberts, 1996, p.219), in the 1970s’s, defined PCE as a measure of the subject’s perception in the their ability to help positively affect environmental resource problems.
The importance of PCE and its ability to inspire action was also previously observed and documented by Kim and Choi (2005) and Vermeir & Verbeke (2008).

In summary, in their research, Kang et al identified CK, PCE and PPR as being important antecedents of attitudes, subjective norm and behavioural control (the 3 components of Ajzen’s Theory on Predicting Behaviour). These in turn affect purchase behaviour and consumption of ESPs (Kang et al., 2013, p.450).

Kang’s work adds a lot of value to the field of sustainability and purchase intention behaviour, though one factor to keep in mind, is that his research data was based on stated intention of university students. One might question whether a student base of respondents would be a true representation of a general population where realities of work, family, personal ideologies and financial pressures might significantly affect results.

2.2.3 External Factors that might affect behavioural intentions of ESPs

Though the theory on predicting purchase behaviour towards ESPs gives important insights to marketers and businesses, it does not necessarily take into account external, real world situational factors and various competing priorities that might face a consumer with everyday purchase decisions: What is the price differential on ESPs? How accessible and convenient are these products? What are consumers’ time constraints? Is there real consumer choice in stores? Most importantly possibly: Perception is often a bigger obstacle than reality itself, so in this context, what are consumers perceptions on the questions raised above?

Summarised in Table 1 below are some of the consumer perceptions earlier researchers attributed to the disconnect that exists between the behavioural intentions and subsequent purchase behaviour of ESPs:

<table>
<thead>
<tr>
<th>Green products are too expensive</th>
<th>(Magrath, 1992)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cynicism about validity of sustainability claims</td>
<td>(Stisser, 1994)</td>
</tr>
<tr>
<td>Confusion / Lack of knowledge</td>
<td>(Carlson et al, 1992; Schlossberg, 1991)</td>
</tr>
</tbody>
</table>

*Table 1. Factors influencing the Behaviour-attitude Gap (as cited by Roberts, 1996, p.219)*

Looking at factors outside of cognitive, attitudinal research and touching on the external world and practical real experiences of consumers in the retail environment: Research done by Young et al (2010) found that the key themes that repeatedly emerged as obstacles to green consumerism were lack of information on green products; time constraints; high prices; and personal preference for criteria that might not be green (such as having a brand preference). Young’s consumer
The Young model illustrates that in order for a repeat purchase (which has the potential to become a habit purchase) to occur, the product needs to deliver what the customer expects. A satisfied customer will repeat the purchase behaviour. However, where greenwashing occurs, or if the green product is below customer expectations, the disillusioned customer will disrupt the cycle by walking away from ESPs.

2.2.4 Lifestyle choices

What then could be an easier route to get buy-in? Looking at an “ideal target market” that would be the least hard work to convert to more sustainable consumption behaviour, McDonald et al (2006) simplistically divided consumers into 3 main groups. On the one extreme are the Voluntary Simplifiers: These are consumers who have chosen to live a frugal, anti-consumer lifestyle which involves low resource use and a low environmental impact (McDonald, Oates, Young, & Hwang, 2006, p.2). These consumers cultivate non materialistic sources of satisfaction and meaning (McDonald, Oates, Young, & Hwang, 2006; Etzioni as cited by Oates et al., 2008).

On the other extreme are the Non-voluntary Simplifiers who are completely dismissive of ethical or environmental factors. The opportunity for the retailer (and for future generations) is to engage the so-called Beginner Voluntary Simplifiers who have already taken on aspects of sustainable behaviour, but have not yet committed or converted to it (McDonald et al., 2006). McDonald et al postulates that studying and engaging with Beginner Voluntary Simplifiers provides a key opportunity in understanding how to advance sustainable consumption by potentially interrupting existing buying patterns in order to create new ones which are more ESP orientated; The research
also yields insights with respect to information touchpoints for these consumers, that the marketer can use to influence consumers towards more sustainable consumption behaviour. A summary of the results below in Figure 3.

![Figure 3. Summary of Research findings by Oates et al (2008)](image)

What the study highlights is the importance for retailers of understanding how to connect and engage with the different consumers; understanding that a different strategy would be needed to engage with each. Endorsements of for example seafood by credible associations such as the WWF SASSI (the South African Sustainable Seafood Initiative) might have a more significance to a Voluntary simplifier, whereas knowledgeable store staff and visible instore product information might appeal more directly to the Beginner Voluntary Simplifier. A single strategy is not sufficient.

### 2.2.5 Satisfying personal current needs vs. a future orientation benefiting society overall

In 1991 Hume (as cited by Kim & Choi, 2005) stated that there is no empirical evidence that a pro environmental attitude would necessarily translate into environmentally conscious buying behaviour. Along the same line of thought, McCarthey & Schrum (as cited by Kim & Choi, 2005) held that the factors influencing the purchase of ESP are less complicated than that: Purchase behaviour is the outcome of a personal cost-benefit scenario particular to the purchaser and is satisfying a current need. Environmentally conscious behaviour is future orientated and focused on benefiting society overall. So purchase of an ESP is unlikely to deliver any immediate additional benefit to the purchaser over and above the actual purchase (McCarthey & Schrum as cited by Kim & Choi, 2005). From this statement it might seem that one might be
overcomplicating the underlying decision process for the purchase of ESPs. However, should there be price and quality parity, and readily available ESPs, it would then be key to understand what might drive the consumer to pick the “green” product, and to then start a cycle of repeat purchase.

2.3 Factors that Influence Consumer Purchasing Behaviour - Food

2.3.1 Dairy Industry
Vermeir & Verbeke (2006, 2008) explored the behaviour-attitude gap within a Food context, to gain an insight into the triggers and obstacles that lie between purchase intention and actual purchase behaviour. In 2008, they conducted a study interviewing 456 consumers (students between ages of 19 – 22), in Belgium using sustainable dairy as the product. What Vermeir & Verbeke (2008) wanted to test (and what previous research had found) is whether a “more involved” consumer (i.e. someone who knows more about the product, has done research) would attach greater personal benefit to the consumption of an ESP.

In their study, they manipulated the following four variables between the control and experimental group: 1) Level of Personal involvement, 2) Perceptions on availability of product, 3) The Certainty that the product was authentically sustainable and finally 4) the Perceived Consumer Effectiveness in making a difference by buying sustainable Food product. The research showed that explaining the benefits of ESPs with Consumers led to greater involvement. This in turn led to a greater willingness to purchase sustainable products.

The significance of the Vermeir & Verbeke (2008) study is the indication that more ethical and sustainable food consumption can be encouraged by increasing customer involvement, easy access to, and availability of authentic sustainable product. Hand in hand with this is communicating the difference that the consumer is making through their consumption of ESPs to themselves and others and reinforcing the concept of PCE (Vermeir & Verbeke, 2008). Consumers really can make a difference, and for the marketer of sustainable foods these are key levers and touchpoints.

2.3.2 Meat Industry
Moving further abroad to Brazil, de Barcellos et al (2011) also researched the behaviour-attitude gap that exists between consumers intentions and purchase behaviour; this time focusing on the meat industry. Sampling 475 respondents from a geographically dispersed area, they looked at whether there was a link between Brazilian citizens’ attitudes towards pork production systems and their pork related purchase behaviour. Even though Brazil at the time was ranked in the top countries as having environmentally friendly consumers (de Barcellos et al., 2011, p.391), the outcome of the study showed a very weak link between these two variables. This weak link was
attributed to consumers having little knowledge of pig farming, and the realities and implications of it. The opportunity for marketers and businesses is to educate consumers on the realities of animal production in a modern society (de Barcellos et al., 2011; Robinson & Smith, 2002). This echoes the findings of Vermeir and Verbeke’s study on Foods that educating the customers and increasing their knowledge on sustainable product and its related advantages increases Customer Involvement and Perceived Customer Effectiveness; and ultimately increases environmentally friendly consumption.

The factors not taken into account in these studies is the convenience of access to sustainable product, as well as the impact of a price differential on the consumers’ decision making. One of the earlier studies conducted on food-specific behaviour as it relates to sustainability was done in 2002 by Robinson and Smith. Their research was aimed at investigating whether demographics, beliefs, attitudes, subjective norm, self-identity and perceived behavioural control were predictors of purchasing sustainably produced food (Robinson & Smith, 2002, p.316). The research at that stage indicated that the key barriers of food purchase behaviour were price, a perception of inconvenience, and lack of availability.

Within this context, Meulenberg (as cited by Vermeir & Verbeke, 2006) described sustainable consumption as based on “a decision making process that takes the consumer’s social responsibility into account in addition to individual needs and wants” (p. 170). Everyday consumption is characterised by habit, value for money, convenience and hedonism. The opportunity for marketers in the food context, is leveraging some of these values, and translating it into a modern, individualistic context where consuming healthier food translates into a very real personal value add. It is about understanding consumer’s values; what they will, or will not, allow into their and their families’ bodies. Against the current South African economic and social backdrop, with high unemployment and low wages, this “conversation” does seem to only speak to a small percentage of the population, those at a higher LSM, where privilege and freedom of choice correlate. But it is a start.

Sustainable, organic, and fair trade produce is often bought in the context of firstly taking care of a family, but secondly also aligning their purchase behaviour with a personal moral ideology (providing healthier food) and intrinsic ethical values at a marginal additional cost (Ritch, 2012).

**A key difference between Food and Clothing**, respectively, is consumers’ perception as to whether there is a direct, personal benefit and added value of using an ESP. This might explain the successful positioning of the value of sustainably produced Food in the mind of the consumer (Ritch, 2012).
2.4 Factors that Influence Consumer Purchasing Behaviour – Apparel

2.4.1 Relevancy to consumers

“We are what we wear. In reality, we are who our clothes allow us to be…” (O’Cass, 2004, p. 880). Joergens (2006) defined ethical fashion as fashionable apparel that is true to the principles of sweatshop-free labour conditions, not harmful to the environment, and uses biodegradable fabrics and organic cotton. However, sustainability in the apparel context is very complex. This is due to the fragmented nature of the textile supply chain, and often-related lack of transparency within it. For this reason, when communicating sustainability in clothing to the consumer, one is often forced to “narrates the lens”, by focusing mostly on environmentally friendly components such as materials (e.g. organic cotton) and production methods (e.g. non-toxic dyes used) (Beard and Fletcher as quoted by Niinimäki, 2010). Looking at the SA retail landscape, the market is flooded with low cost, low quality, “disposable” clothing; volume sales driven through deal mechanisms. This should beg the question about regulation of wages, child labour, and long working hours in the mind of the consumer; but for the purposes of this discussion, the focus is limited to the environmental factors: Research conducted by Ritch (2012) revealed that customers are generally not well informed on the realities of textile manufacture and its impact on the environment. This correlates with de Barcello’s findings in the food production industry. As a result the truth and realities behind unsustainable textile manufacture feels far removed from the consumer. And the challenge is that, due to the various components in the textile process (fabric mills, buttons, zips, binding suppliers, sewing and dying process), the process is very fragmented and as a result, much more complex to control and monitor.

2.4.2 Meaning of Fashion to the Consumer

Consumption, according to Niinimäki (2010) is often a platform to tap into something aspirational or meaningful to the consumer. Within this context, Kaiser (as cited by Niinimäki, 2010) describes clothing as a fundamental part of our social interaction with others, reflecting how we wish to portray ourselves. We are constantly evolving, re-creating ourselves and aligning an external image we want to portray to a changing self. We choose to hide or express. And Clothing is often the vehicle that enables us to do this with (Niinimäki, 2010). Consumers with a strong materialistic inclination tend to use fashion to manage other’s impressions of them. Clothing is often used to signal; especially in a work or social context (O’Cass, 2004). In this context, what role does sustainability then play in the clothing context and does a cross over exist between Food and Clothing?
2.4.3 Translation from Food to Fashion

The extent to which sustainability principles are being translated from the Food context to fashion was a question that Ritch (2012) wanted to unpack. Her target audience was working mothers who had already embraced some degree of sustainable consumption behaviours in other contexts. She conducted in-depth unstructured interviews with 28 participants resident in the UK. What became clear from the onset of the research is that the decision-making process in Fashion Clothing is substantially more complex than with Food. From the studies it emerged that this is attributed to the fact that fashion is a vehicle through which self-identity and status is expressed, and a way of signalling in our society (Ritch, 2012, p.17), and of seeking peer acceptance (Faber et al, 1987, as cited by Ritch, 2012). How we dress is often evaluated in terms of conformity. We use fashion to either differentiate ourselves or blend in. Consumption behaviour is the result of a trade-off between values. Value again has various dimensions: The value derived from purchasing the product, but in addition to that – the pleasure of ownership (B. Webb, 2007). It is this pleasure of ownership, having to have something, that could possibly start to describe what lies behind and distinguishes the consumption of food, from the consumption of clothing. To frame this, Belk et al (2000) wrote extensively on the difference between a need and a desire; fashion has become a vehicle to project an image that might or might not be a reality; and which satisfies a public image that the wearer wants to project. Ritch (2012) found that sustainable food consumption behaviour did not translate into sustainable fashion behaviour, even though consumers might have a positive attitude towards environmental protection (Joergens, 2006; Niinimäki, 2010). Style, colour, fit and texture was more important purchase criteria to the consumer than sustainability, due the meaning and messaging attached to clothing.

2.4.4 A Holistic Approach

Brosdahl and Carpenter (2010) explored the antecedents to eco-friendly consumption specific to the apparel and textile environment. They focused on the extent to which a) knowledge of environmental impacts of apparel production, and b) concern for the environment, might lead to more sustainable textile purchase behaviours (Brosdahl & Carpenter, 2010). They found that knowledge alone was not sufficient to drive a different behaviour, but that concern for the environment is also necessary. The relevance to marketers is that concern for the environment can be nurtured through ongoing, subtle education of the consumer on the harmful impact of unsustainable textile production. This in turn can influence consumption behaviour (Brosdahl & Carpenter, 2010). However, as stated by Jane Shepherdson (consultant to People Tree and Oxfam): “Guilt does not drive change, desire does. If you want someone to buy a Fair Trade Dress, then make sure it looks absolutely gorgeous. You can’t expect people to do it altruistically,
because they won’t. It needs to be stylish first, and then the ethical part needs to be added value, as in “O, it’s ethical too – perfect” (Shepherdson as cited in Beard, 2008, p.465).

2.4.5 The challenge / opportunity faced
The term, “sustainable fashion”, might almost seem like an oxymoron. Fashion is about a regular update and reviewing of appearance on an ongoing basis, in line with trend and seasonality. Sheth et al (2011) refers to acquisitive consumption which is consumption that exceeds one’s needs (p.28). It is about updates and ongoing newness. This in itself goes against the principles of considered, sustainable and mindful consumption. As a result, much of textile waste is currently routed to landfill (Ritch, 2012; Woolworths Holdings Limited, 2013). An opportunity exists to mobilise the marketing function as the vehicle to help drive change in consumption patterns and in the process build brand affinity and loyalty with its consumer base.

2.5 Sustainability within the SA context
Incorporating sustainable products and end-to-end processes into business practice can yield a strategic competitive advantage (Reuter, Foerstl, Hartmann, & Blome, 2010). Speaking to this, Ajzen & Fishbein’s Theory of Reasoned Action developed in 1980 is good news for retailers and brands. The theory states that people act in accordance to what they believe the outcome of an action will be (how effective will it be), and also takes into account perceived expectations of how they “should” act. Brands create an emotional connection with the consumer, and therefore potentially have the power to shift consumers’ attitudes and create emotional preferences that influence behaviour. Alignment with a trusted brand means that the consumer uses the brand to align their behaviour to what they perceive their ideal self-concept to be (Pickett-Baker & Ozaki, 2008) (i.e. to be a greener consumer). In addition to this, cue utilization theory, as suggested by Hansen (2005) suggests that consumers use cues such as price, brand, name etc. as a method to reduce risk and make purchase decisions when they face uncertainty (like quality of a product, origin etc.).

Woolworths in the SA context, has done exactly what Reuter et al (2010) suggested. Sustainability is part of their strategic competitive advantage: They have positioned themselves as a trusted, quality retailer, committed to initiatives that will drive sustainability through the supply chain. It is a point of difference in their business and allows them to target the higher LSM consumer.

With reference to the Food and Textile markets, respectively: It seems that the food industry has managed to position the notion of sustainability more easily than the textile industry has (Ritch, 2012). It would not be untoward to apply this statement to the SA environment. The reason for consumers in the sustainable food environment showing more commitment to sustainability could
possibly be due to the tangible direct benefits thereof, namely that it is healthier. The clothing consumption benefit on the other hand is more other-focused and removed from the consumer. And as a result, direct benefit is less tangible to the end consumer (Petit as cited by Beard, 2008; Joergens, 2006).

2.6 Research questions:
The Nielsen poll (The Nielsen Company, 2014) conducted on the topic of sustainability posed a key question: Do customers care enough about sustainability to be willing to pay for it? Does this care convert into action? Based on the literature reviewed, and to provide insight into the research problem discussed, the following research questions are posed:

**Research Question 1:** What is the relative importance of Sustainability to the South African Consumer as a criterion in making a purchase decision?

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Vermeir and Verbeke (2006) and Ramirez (2013), amongst others, identified a behaviour-attitude gap that exists when it comes to consumption of ESPs. In addition to this, research on the topic of sustainability indicates that the underlying motivational forces that drive consumer purchase behaviour differ when it comes to consumption decisions for sustainable Food or Clothing. Early researchers, Robinson and Smith (2002), state that price, convenience and availability are central to the decision on purchase of Food. From an apparel perspective, self-identity, social appeal and self-expression were stated as being core drivers in clothing purchase decisions (Joergens, 2006; Niinimäki, 2010; Ritch, 2012). This begs research question two:

**Research Question 2:** What are the differences in the relative importance of sustainability as a purchase criterion between Clothing and Food for the consumer?

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Corporate Social Responsibility is increasingly becoming part of the licence to do business in a modern era (Carter & Easton, 2011), whilst, based on cue theory, engaging in sustainable business practices can help create to a competitive business advantage. Against this backdrop, gaining insight into which sustainability initiatives customers value and expect from retailers will be very relevant for the modern retailer in creating an emotional connection with the consumer.

**Research Question 3:** Which sustainability initiatives do customers expect from retailers?
3. RESEARCH METHODOLOGY

Both qualitative and quantitative methods were used in this research in an attempt to leverage the advantages that each offer. The following chapter discusses the Research Methodology in more depth.

3.1 Research Methodology and Design

Both qualitative and quantitative methods of data collection endeavour to answer specific questions; however, their approaches to the question differ as they view the world through different lenses. Quantitative methods have been described as an attempt to measure phenomena objectively, whilst qualitative methods in turn attempt to explore and understand the complexity thereof from the participant’s subjective point of view (Williams, 2007). For the purposes of this study, a **Mixed Methods Approach** was used. This was for the following reasons: Qualitative and Quantitative methods are seen as complementary to each other, and hence the aim of the Mixed Method Approach is to leverage the strengths of each approach, whilst minimizing the weaknesses (Johnson & Onwuegbuzie as cited by Williams, 2007). Therefore, rather than a replacement of either method, it is an extension thereof, and is one of the ways in which the validity of a study can be improved (Guthrie, 2010).

The research **design** selected was of an **inductive, non-experimental nature**: This involved two components: a) the hosting an initial focus group, using open ended questions of an exploratory nature, in order to gather initial data; and then b) a survey to a broader audience using an online questionnaire and conjoint analysis.

**A note on sample population:** The purpose of the research was to gain insight into the relative importance of sustainability as a purchase criterion. Woolworths is currently one of the top leading General Merchandise and Foods retailers in South Africa with regard to Sustainability. Sustainability is at the heart of their business strategy and is known as the ‘Good Business Journey’ (Woolworths Holdings Limited, 2013). As Sustainability is not completely new to the Woolworths customer, the sample population purposefully targeted was the Woolworths customer. Because of their exposure to sustainable food and sustainable clothing at Woolworths, this store environment presents an ideal milieu in which to get a reading on customer’s evaluation of the importance of sustainability as a purchase criterion when contrasting food versus clothing. Though Woolworths actively targets the high income LSM 8 – 10 customer, it does attract a significantly wider consumer base due to it being an aspirational brand to a lower LSM customer.
3.2 The Qualitative Study

In establishing which of the purchase criteria customers deem important when purchasing Food or when purchasing Apparel, a Focus group consisting of 8 participants was hosted.

3.2.1 Population and Sample of the Focus group

In order to get a more general perspective on consumer purchase behaviour, the population of the focus group was not limited to the Woolworths customer base only, but was based on random selection. For this reason, the focus group consisted of a sample of 8 participants from a diverse mix across gender, age and race. Below a graphic representation of the focus group demographics:

The average age of the participants in the focus group, were 38.4 years old. The male to female ratio was 3:5 and mix of race fairly evenly spread.

Figure 4. Graphic representation of Focus Group Demographics

The average age of the participants in the focus group, were 38.4 years old. The male to female ratio was 3:5 and mix of race fairly evenly spread.
The size of the hosted group corresponds with the recommendations from Hoyle et al (cited by Marczyk, DeMatteo, & Festinger, 2005) who proposed that the ideal size of a focus group to get the most interaction from the session, is between 6 – 10 individuals.

### 3.2.2 The Research Instrument

As was clear from the literature review, when comparing food and clothing purchases, different underlying decision criteria seem to be at play during the purchase decisions processes. In order to provide catchment for insights that might otherwise have been lost in a purely quantitative study, the decision was made to host a focus group. The exploratory nature of this instrument allowed for insights into how respondents viewed sustainability in general, and also the importance of specific criteria when making purchases. The dominant purchase criteria referred to in the literature were price, quality, availability, style, and brand (Joergens, 2006; Niinimäki, 2010; Ritch, 2012; Robinson & Smith, 2002). The objective of the focus group was to determine which purchase criteria the focus group respondents attached importance to, and in the process to create the base set of purchase criteria across food and clothing that would be used in the conjoint questionnaires.

Focus group topics were:

- Which are the key criteria considered during food purchases?
- Which are the key criteria considered during clothing purchases?
- Which factors under the sustainability umbrella was important to them?
- What determines the retailer of choice for a specific food or clothing item?

### 3.2.3 Procedure for Data Collection

Open ended, exploratory questioning was used to identify the criteria that consumers consider important when purchasing food and apparel, respectively. The advantage of open ended questions in a focus group is that it allows for rich discussion and opportunity to clarify ideas and opinions.

### 3.2.4 Data analysis and Interpretation

Two sets of specific purchase criteria were obtained via the focus group (refer to Table 2 below).

<table>
<thead>
<tr>
<th>Criteria that influence purchase decisions:</th>
<th>FOOD</th>
<th>CLOTHING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Price</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>Fit</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>Quality</td>
<td></td>
</tr>
<tr>
<td>Organic</td>
<td>Brand</td>
<td></td>
</tr>
<tr>
<td>Freshness</td>
<td>Fashionability</td>
<td></td>
</tr>
</tbody>
</table>

*Table 2. Focus Group result: Criteria that influence purchase decisions*
Insights gained through the discussion were carefully documented during the session. These criteria were then incorporated into the questionnaires used in the quantitative study in no particular order and with equal weighting to each.

3.3 The Quantitative Study

Having identified the leading purchase criteria that influence purchase decision making, the relative importance that consumers place on each of these criteria needed to be established.

3.3.1 The Population and Sample

The Population of the study is the 130,000 Woolworths customers on the customer panel database who are potential voluntary participants in electronic surveys. Through random sampling of LSM 8 – 10 customers, the invitation to participate in the survey was sent by to 3000 people of the 130,000, of which 955 respondents agreed to take part in the survey; 700 respondents started the survey, and of these 558 finally completed it.

3.3.2 The Research Instrument

The most commonly used tool for analysing customer trade-offs and understanding the utility that a customer assigns to various attributes during their decision making, is Conjoint Analysis (Green, Krieger, & Wind, 2001). Through the use of Conjoint Questionnaires, the subject is required to make trade off decisions, and through data analysis, the utility value that the consumer attaches to the various attributes can be measured (Lilien & Ragaswamy, 2003).

Multiple Conjoint Analysis methodologies exist. Because of the number of attributes identified across both Food and Clothing in the focus group, the Conjoint model chosen most suited to the study, was Adaptive Conjoint Analysis (ACA). Adaptive Conjoint analysis was developed specifically to handle more complex scenario where various descriptive attributes and levels are required (“Qualtrics,” n.d.). Using ACA, more attributes can be measured than using traditional full profile conjoint. This more closely simulates realistic, complex purchase decision making behaviour, as trade off decisions made involves various factors simultaneously.

By design, the adaptive nature of this particular conjoint method necessitates it to be a computer administered survey which has advantages and limitations. The advantage being that it allows for a wider catchment reach for the survey, and allows a greater degree of control of the sample population: sample populations can either be targeted, or specifically randomised. The disadvantage is that the survey is exclusively computer based, thus excluding a range of potential respondents. With the target population for this survey having been identified as the higher LSM
customer, and the survey being exploratory in nature, this limitation was recognised, but was not identified as crippling to the success of the survey.

3.3.3 Procedure for Data Collection
Qualtrics Online Survey Solutions was the vehicle used to design the survey. The survey was developed around the criteria identified by the focus group.

The survey was divided into various sections: (See appendix A for the full survey detail and flow)

- A conjoint questionnaire for criteria influencing Food purchases
- A conjoint questionnaire for criteria influencing Apparel purchases
- Respondents demographic information
- A section that allowed text responses regarding customer expectations form retailers with regard to Sustainability Initiatives.

A brief explanation of Conjoint terminology and the adaptive system of derivation of utility scores follows below, in order to assist with the understanding and interpretation of the data generated from the survey:

Through the focus groups, specific criteria were identified that were important in consumer purchase decision. Based on this input, two conjoint blocks were designed within the Qualtrics survey: The first pertaining to Foods and the second to Clothing: 11 purchase criteria across food and clothing were identified and various levels of consumer behaviour options were designed into each criterion. In each conjoint question, consumers were forced to make trade off decisions to indicate their level of preference for different consumer behaviour options within each of the criteria. Respondents would rank the attribute levels and finally assign a weighted importance to each of the purchase criteria. An extract of the conjoint block survey for foods is outlined in Figure 5 below in order to illustrate concepts discussed above.
The trade-off decisions the respondent made throughout the conjoint block derived a utility score at each level of preference for different consumer behaviours within each purchase criterion. These utilities indicate the relative importance that respondents attach to each trait and these utilities are directly comparable to each other across the conjoint block.

In order to indicate the relative importance of each purchase criterion to others, participants were then requested to allocate 100 points across the different purchase criteria (note: the terms

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**Figure 5 Conjoint Block for Foods example – deriving individual utilities for the various levels of consumer behaviour within each purchase criterion.**
“feature” and “criterion” are used interchangeably due to Qualtrics naming of variables as “features”).

The above process in turn derived a **Utility Constant Sum Score (UCS)** for each purchase criterion, which is an indication of the overall importance weighting given to each criterion relative to others. The UCS score of each is the key indicator of the **level of importance** of each of the features **relative to each other**. It is important to note that all the UCS scores of the various criteria in each conjoint block add to 100; the UCS scores in the results is as a numeric number (for e.g. 34 which is essentially 34/100; which translates an importance weighting of 34%). Direct comparison of UCS scores of purchase criteria across the food and clothing conjoint blocks is possible as a result.

Equally, the various **individual utility scores** within the levels of preferences for different consumer behaviour options is indicative of which aspects of consumer behaviour the respondents valued most. This allowed comparing across various purchase criteria: for example, across organic foods and ethical treatment of animals, food being free of antibiotics might have a higher utility rating than animals being free range. A higher utility score indicates a higher customer importance rating.

Within the Qualtrics survey, a qualitative response component was incorporated: Two open ended questions were posed which allowed for text input from respondents regarding sustainability initiatives, and what customers’ expectations are from retailers. These text responses were synthesised and coded in order to give insight into overlapping and emerging themes.
3.3.4 Data Analysis and Interpretation
Qualtrics Online Survey Solutions was used in order to derive UCS scores for each purchase criterion relative to other criteria. Two sets of results was produced: One for clothing and one for foods. In order to gauge the relative importance of sustainability within the factors identified, sustainability related factors could be aggregated and compared to ‘other factors’. Analysis of data was done through Qualtrics and excel used where necessary to extrapolate data further. T tests were conducted to test for statistical significance in variances of gender responses.

3.4 Limitations of the study
Limitations of study were the following:

- The Research study was purposely conducted with Woolworths’ customers only. Given that Woolworths is at the vanguard in South Africa with respect to sustainability practices, thus offering high ‘green’ exposure to their customers, the survey respondents were potentially more sensitised to sustainability than the general SA population would be. This would limit the generalisability of results to the broader SA population.
- Woolworths actively targets the higher LSM customer (8-10), which is not representative of the general population. However, because of the aspirational value of the Woolworths brand, it does attract a wider market than would be expected.
- The responses were based on stated intention, not actual purchase behaviour.
- Though the questionnaire was sent out to a random sample base, the majority of the respondents that completed the questionnaire, were older, white, female consumers. This again impacts the generalisability of the results.

3.5 Validity and Reliability
3.5.1 External Validity
External reliability relates to the extent to which results of a research study are generalisable to other conditions, time, participants and places (Graziano et al as cited by Marczyk, DeMatteo, & Festinger, 2005). Though the survey conducted has limitations with regard to generalisability to the general SA population, it does provide insight into consumer purchase behaviour within a higher LSM band.

**Randomisation of sample selection**: The Woolworths customer was previously identified as the primary target population due to their exposure to sustainability initiatives in both foods and clothing.
Sample & Diversity Characteristics: In order to tap into this source of information, an invitation to participate in the online survey was sent to a random 3 000 members of the 130 000 Woolworths database members that are open to participating in surveys. The advantage of an online survey is that it allows for not only a wider sample base, but also a more geographically representative sample. The decision was made not to cap respondent demographically (i.e. gender, race or regional capping) as it might have impacted in lower response rates overall.

3.5.2 Internal Validity

Internal validity is determined by gauging whether the hypothesised cause and effect relationship is indeed causally related, based on the variables and measures used in the study (Martin & Bridgmon, 2012). Leedy & Ormrod (2001) defines it as the extent to which the design of the study as well as the data produced, enables the researchers to accurately draw causal relationships between data. Design of the study is therefore pivotal to the accuracy of the research.

Pilot study to test Questionnaire design: In order to maximise internal validity, a pilot study with 15 respondents was hosted to ensure that the survey was unambiguous, clear and specific. Feedback from pilot respondents were collated and all suggested improvements and amendments implemented prior to launching the survey. In order to provide additional online support, an email address for any queries from participating respondents were included in the online survey.

Other potential threats to internal validity identified by Marczyk et al (2005) is impact of recent history, maturation of sample group, changes in instrumentation and repeat testing learning amongst others. Due to the once off nature of the questionnaire, and the fact that it could only be completed once from any one IP address, this was not identified as a risk.

3.5.3 Construct Validity

“Construct validity asks the question of whether the theory supported in the findings provide the best available explanation of the results” (Guthrie, 2010, p.204). It is necessary to consider whether there could be another causal explanation for the results. Cook and Campbell (as cited by Guthrie, 2010) suggest that using a clear, concise definition or description of a variable upfront in the questionnaire helps address threats to construct validity. Another measure to maximise construct validity will be the detailed data analysis – referencing relative utilities allocated across different levels of LSM and income in order to be aware of potential inferential traps (such as attributing non interest in sustainable foods to lack of knowledge, where it might be income related)
3.5.4 Reliability

Reliability is about the consistency of results that the Questionnaires produce throughout the study. In this research, reliability was achieved by using Qualtrics, an academic survey tool that provides a professional, trackable, reliable survey, ensuring only singular responses to the questionnaire from any one IP address and accurate capture of all responses.
4. RESULTS

The results of the survey will be presented in this chapter.

4.1 Focus Group Results

The results of the focus group was outlined in the previous chapter. These served as the basis of the Qualtrics survey. The most important purchase criteria identified, in no particular order, were the following:

**Food purchases:** Price, quality, convenience, humane and ethical treatment of animals and the organic component of food (health specific).

**Clothing purchases:** Price, fit, quality, brand appeal, ethical sourcing, organic component of fabric.

4.2 Online Survey Results

4.2.1 Demographics

The purpose of this section is to describe the sample with reference to distribution of Age, Income, Gender, level of Education, Race as well as Geographical region. The sample consisted of 558 responses from a population of 130 000 potential respondents. In order to view variations between sample and population, the demographics of both is reflected:

a) Age Distribution

The age distribution of the sample group was a left skewed distribution, whereas the Woolworths database population was right skewed. The average age of the participants in the survey was older. The age distribution curves for both the sample and database populations are represented in Figure 7 below.

![Age Distribution of Sample group](image1)

![Age distribution of WW database population](image2)

*Figure 7. Demographics - Age*
b) Gender Distribution

Both the sample and population group was female dominated, reflected in the left skewing of both distribution curves. However, the sample group was more heavily skewed towards women than the Woolworths database population, as is evident in Figure 8 below.

![Gender Distribution of Sample group vs. WW database population](image_url)

*Figure 8. Demographics - Gender*

c) Income Distribution

Though the Woolworths database was slightly skewed to the left with regard to income, the sample group was even more so, with a slight bi-modal tendency as a result of the spike in the over 85k income group (ref figure 9 below).

![Income Distribution of Sample group vs. WW database population](image_url)

*Figure 9. Demographics - Gender*
d) Race Distribution

Figure 10 below illustrates a strong race bias towards white in the sample group, with white at a 74% contribution to all respondents. In contrast, the race distribution of the Woolworths database, though not representative of South Africa, gives a slightly more representative view across races. Notably absent from the sample group is the voice of the black consumer.

![Race Distribution of Sample group](image1)

![Race distribution of WW database population](image2)

Figure 10. Demographics - Race

e) Level of Education

The general level of education of the sample group was particularly high with the majority of the respondents having post graduate qualifications as is evident from Figure 11 below.

![Level of Education of Sample group](image3)

Figure 11. Demographics – Level of education
4.2.2. Quantitative Data Results

During the focus group, the key factors influencing Food purchase decisions were identified as being quality, price, convenience, humane treatment of animals and organic produce. In the online survey, respondents were asked to make trade off decisions between different levels of consumer behaviour across the purchase criteria identified. Data was cleansed prior to analysis by excluding any incomplete responses from the dataset. Using conjoint analysis and deriving Utility Constant Sum values for each criterion, the relative importance of each of the criteria influencing food purchases were determined. Similarly, individual utilities were calculated for each of the various levels of consumer behaviour options within each criteria. These individual utilities were then examined and compared for nuances across the various purchase criteria, and indeed across conjoint blocks (i.e. compare Food to Clothing).

The survey responses were weighted heavily towards female participants at 87% of the total (vs. the Woolworths population demographic for women at 74% of the total). In real terms, 481 of the respondents were women and 77 were men. This asymmetry, in itself interesting, was investigated by conducting T-tests on the data to test for significant difference between the male and female responses. Investigating for significant gender variations in responses was deemed important for various reasons: it might afford retailers greater insight into nuances between male and female shoppers, to be kept in mind with regard to building product offers and ranges. At the same time, retails could enhance their consumer engagement and communication strategies by taking gender differences into account.

4.2.2.1 Overview of Importance of Factors influencing Food purchases

UCS Scores indicating relative importance of purchase criteria: Of the 5 criteria identified, respondents rated superior Quality food as being most important in their food purchase decision with a UCS of 28.44. This was followed by Price at a UCS of 19.89, and then Convenience at 17.69. Product being organic had the lowest utility overall, with ethical and humane treatment of animals being more important than product being organic, but less important overall than quality, price or convenience. Below in Table 3 is a representation of the sample results for Food purchases for the full sample. Colour was used throughout in the tables to help highlight results: Dark green = high level of importance; Dark red = low level of importance.
### Table 3. Results indicating the relative importance of factors influencing Food purchase behaviour: All respondents

<table>
<thead>
<tr>
<th>Feature / Criterion</th>
<th>QUALITY</th>
<th>PRICE</th>
<th>CONVENIENCE</th>
<th>HUMANE &amp; ETHICAL TREATMENT OF ANIMALS</th>
<th>ORGANIC PRODUCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Preference</td>
<td>Superior Quality in Food products guaranteed. Fresh, longer lasting</td>
<td>Average market Price</td>
<td>I am willing to drive 5 - 10 km to get to a specific food store</td>
<td>Completely free range animals - no indoor cages</td>
<td>Product is 100% free of any antibiotics or added hormones</td>
</tr>
<tr>
<td></td>
<td>2.76</td>
<td>1.18</td>
<td>1.3</td>
<td>1.47</td>
<td>1.57</td>
</tr>
<tr>
<td>Average, yet completely acceptable Quality</td>
<td>Willing to pay a premium (+10% - 15%) for food products that has a perceived benefit to it (i.e. such as being organic, free range etc)</td>
<td>I always go to the closest store</td>
<td>Animals are able to roam free some of the time. It is the best of both worlds</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.54</td>
<td>1.09</td>
<td>1.27</td>
<td>1.13</td>
<td>0.63</td>
</tr>
<tr>
<td>Slightly lower Quality, but not unacceptable</td>
<td>The lowest, most competitive Price in the market</td>
<td>I am willing to drive 15 - 20 km to get to a specific food store</td>
<td>Purely Cage farm animals; it makes sense from an cost and volume production point of view</td>
<td>Product most probably contains antibiotics or hormones</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.08</td>
<td>0.85</td>
<td>0.2</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>UCS: Overall Relative Utility of Feature</td>
<td>28.44</td>
<td>19.89</td>
<td>17.69</td>
<td>17.30</td>
<td>16.70</td>
</tr>
</tbody>
</table>

Other factors: Sustainability related factors
Individual Utilities indicating consumer preferences within the various levels of consumer behaviour within each factor (taking into account that each utility is directly comparable to any other in the same conjoint block):

Superior quality produce that stays fresh longer had the highest utility overall (2.76), followed by Product being 100% free of antibiotics or hormones (1.57). Third was average but acceptable quality (1.54), followed by free range products where animals are treated humanely (1.47).

From a sustainability in Foods point of view, respondents rated Product being hormone and antibiotics free as more important than they did the ethical treatment of animals.

The lowest individual utility overall was purely cage farmed animals (0.05), and products containing hormones and antibiotics (0.06), low quality food (0.08) and also inconvenience (having to drive far to get to a specific store) (0.2). Gender specific variations in results will be included in the overall discussion of the results which follows below. Table 4, below, unpacks the information in Table 3 into comparative gender responses.
### Table 4. Gender specific results for Food related purchases

#### FOOD RELATED PURCHASES - MALE SAMPLE POPULATION  (n=77)

<table>
<thead>
<tr>
<th>Feature / Criterion</th>
<th>QUALITY</th>
<th>PRICE</th>
<th>CONVENIENCE</th>
<th>HUMANE &amp; ETHICAL TREATMENT OF ANIMALS</th>
<th>ORGANIC PRODUCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest Preference</strong></td>
<td>Superior Quality in Food products guaranteed. Fresh, longer lasting</td>
<td>Average market Price</td>
<td>I am willing to drive 5 - 10 km to get to a specific food store</td>
<td>Completely free range animals</td>
<td>Product is 100% free of any antibiotics or added hormones</td>
</tr>
<tr>
<td></td>
<td>2.91</td>
<td>1.25</td>
<td>1.29</td>
<td>1.28</td>
<td>1.37</td>
</tr>
<tr>
<td></td>
<td>Average, yet completely acceptable Quality</td>
<td>Willing to pay a premium (+10%-15%) for food products that has a perceived benefit to it (i.e. such as being organic, free range etc)</td>
<td>I always go to the closest store</td>
<td>Animals are able to roam free some of the time. It is the best of both worlds</td>
<td>Product might possibly contain some antibiotics and hormones</td>
</tr>
<tr>
<td></td>
<td>1.56</td>
<td>1.25</td>
<td>1.25</td>
<td>0.97</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>Slightly lower Quality, but not unacceptable</td>
<td>The lowest, most competitive Price in the market</td>
<td>I am willing to drive 15 - 20 km to get to a specific food store</td>
<td>Purely Cage farm animals; it makes sense from an cost and volume production point of view</td>
<td>Product most probably contains antibiotics or hormones</td>
</tr>
<tr>
<td></td>
<td>0.07</td>
<td>0.77</td>
<td>0.21</td>
<td>0.96</td>
<td>0.97</td>
</tr>
</tbody>
</table>

#### UCS: Overall Relative Utility of Feature

<table>
<thead>
<tr>
<th>Feature</th>
<th>Quality</th>
<th>Price</th>
<th>Convenience</th>
<th>Humane &amp; Ethical Treatment of Animals</th>
<th>Organic Produce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Related Purchases - Male Sample Population</td>
<td>29.67</td>
<td>21.82</td>
<td>17.83</td>
<td>15.36</td>
<td>15.58</td>
</tr>
</tbody>
</table>

#### FOOD RELATED PURCHASES - FEMALE SAMPLE POPULATION  (n=481)

<table>
<thead>
<tr>
<th>Feature / Criterion</th>
<th>QUALITY</th>
<th>PRICE</th>
<th>CONVENIENCE</th>
<th>HUMANE &amp; ETHICAL TREATMENT OF ANIMALS</th>
<th>ORGANIC PRODUCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest Preference</strong></td>
<td>Superior Quality in Food products guaranteed. Fresh, longer lasting</td>
<td>Average market Price</td>
<td>I am willing to drive 5 - 10 km to get to a specific food store</td>
<td>Completely free range animals</td>
<td>Product is 100% free of any antibiotics or added hormones</td>
</tr>
<tr>
<td></td>
<td>2.74</td>
<td>1.17</td>
<td>1.3</td>
<td>1.51</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>Average, yet completely acceptable Quality</td>
<td>Willing to pay a premium (+10%-15%) for food products that has a perceived benefit to it (i.e. such as being organic, free range etc)</td>
<td>I always go to the closest store</td>
<td>Animals are able to roam free some of the time. It is the best of both worlds</td>
<td>Product might possibly contain some antibiotics and hormones</td>
</tr>
<tr>
<td></td>
<td>1.54</td>
<td>1.06</td>
<td>1.27</td>
<td>1.15</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>Slightly lower Quality, but not unacceptable</td>
<td>The lowest, most competitive Price in the market</td>
<td>I am willing to drive 15 - 20 km to get to a specific food store</td>
<td>Purely Cage farm animals; it makes sense from an cost and volume production point of view</td>
<td>Product most probably contains antibiotics or hormones</td>
</tr>
<tr>
<td></td>
<td>0.08</td>
<td>0.87</td>
<td>0.2</td>
<td>0.04</td>
<td>0.05</td>
</tr>
</tbody>
</table>

#### UCS: Overall Relative Utility of Feature

<table>
<thead>
<tr>
<th>Feature</th>
<th>Quality</th>
<th>Price</th>
<th>Convenience</th>
<th>Humane &amp; Ethical Treatment of Animals</th>
<th>Organic Produce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Related Purchases - Female Sample Population</td>
<td>28.25</td>
<td>19.59</td>
<td>17.67</td>
<td>17.61</td>
<td>16.88</td>
</tr>
</tbody>
</table>

#### Other factors | Sustainability related factors

<table>
<thead>
<tr>
<th>Male Sample Population</th>
<th>Female Sample Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>69.32</td>
<td>30.94</td>
</tr>
</tbody>
</table>
Differences in scores between male and female responses were apparent when data was analysed. However, in order to determine whether these variations were truly statistically significant, T-tests to 5% significance were conducted on the data. Table 5 below contains a summary of the T-test results. More complete details on these test results can be found in appendices D, E, F and G.

<table>
<thead>
<tr>
<th>Relative Importance of criterion in Purchase Decision</th>
<th>P Value</th>
<th>Result</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Specific Convenience</td>
<td>0.9084</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Food Specific Price</td>
<td>0.0918</td>
<td>Not significant to ≤ 5%, but significant to ≤ 10%</td>
<td>More important to Women</td>
</tr>
<tr>
<td>Food Specific Quality</td>
<td>0.3687</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Food Specific Humane &amp; Ethical treatment of animals</td>
<td>0.0548</td>
<td>Not significant to ≤ 5%, but significant to ≤ 10%</td>
<td>More important to Women</td>
</tr>
<tr>
<td>Food Specific Being Organic</td>
<td>0.3019</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Food Specific Importance of Sustainability related factors</td>
<td>0.0389</td>
<td>Statistically significant to ≤ 5%</td>
<td>More important to Women</td>
</tr>
<tr>
<td>Food Specific Importance of Other factors</td>
<td>0.1537</td>
<td>Not statistically significant</td>
<td></td>
</tr>
</tbody>
</table>

Table 5. T-test results summary indicating significance of variation in gender responses with regard to Food purchases

1 Quality

For Food purchases, quality had the highest UCS rating of 28.44. The highest individual utility score across the conjoint block, was for superior quality in food and freshness guaranteed at a utility of 2.76. The consumer is insisting on above average food quality with average quality at a rating of 1.54. When disaggregating the results by gender, the UCS for Quality in Food was higher for men than for women. (Men weighted higher importance to quality in Foods than women did). However, based on T-test results, this gender difference was not statistically significant.

2 Price

Price was identified as the second most important criterion with a UCS rating of 19.89. Respondents did not attach a high importance to needing to pay the lowest prices for food. When results were unpacked by gender, men displayed a higher inclination to paying a premium for food with a perceived benefit (such as being free range or organic). Women were more resistant to paying a premium, but both groups placed more importance to paying a premium than needing to pay the best price in the market (This view would be as a result of the high LSM of the sample). The T-test result, yielding a P value of 0.0918, illustrated that the gender difference in response was not significant to ≤ to 5%, but was significant to ≤ to 10%.
3 Convenience

As third most important factor, convenience has a UCS score of 17.69. Respondents did not rate needing to go to the closest store as very important. However, there was a big resistance to driving further than 10km to a specific store. Scores across gender were similar for this criterion.

4 Humane and Ethical treatment of animals

Humane and ethical treatment of animals had the overall relative UCS rating of 17.3 across responses. Women overall rated ethical treatment of animals just marginally behind convenience overall (17.61 vs convenience at 17.67), whereas men rated ethical treatment of animals at 15.36 overall. This deviation is mostly driven by their relatively high utility rating that men gave to cage farming (efficiency) at 0.96 vs women at 0.04. Women attached a higher importance to animals being completely free range (vs partially free range) than men did. T-test results yielded a P value of 0.0548, which indicated that the variation again, was not significant to ≤ 5%, but was significant to ≤ 10%.

5 Organic Food Product (hormone and anti-biotic free)

Though product being organic had the lowest UCS of the 5 criteria at 16.70, the individual utility score for product being 100% free of antibiotics or hormones, was the second highest for the Conjoint block overall—consumers attaching a high level of importance to the concept. Dissecting results by gender: though women rated organic food product as a criterion as more important than men did, the T-test results indicated that the difference is statistically insignificant. The variation in the UCS score is driven by men rating ‘buying product that most probably contains hormones and anti-biotics’ more favourable than women. (0.97 vs 0.05 rating of women). Women rated product being 100% organic and anti-biotic free higher than men did (male rating of 1.37 vs women at 1.6).

Summary: Sustainability vs ‘other factors’ in Food purchases

The total UCS scores of the food conjoint block across criteria add to 100. Sustainability specific criteria isolated sum to 34 (being 34/100), whereas ‘other criteria’ influencing foods purchases (i.e. quality, price and convenience) sum to 66 (being 66/100). However, looking at gender specific deviations from this overall score, men rate sustainability related factors at 31 (and rank ethical treatment of animals and organic nature of food of equal importance) whereas women rate sustainability related factors at 34.5, and place more importance on humane and ethical treatment of animals than on the organic nature of food. Testing the significance of variation in gender specific results indicated that, at a P value of 0.0389 there is indeed a statistically significant
difference to $\leq 5\%$ between male and female responses for sustainability related factors in Food as indicated by the UCS scores.

4.2.2.2 Overview of importance of factors influencing Clothing purchases

The focus group identified key factors influencing Clothing purchases as being fit, quality, price and brand appeal. Sustainability did not surface unaided in the conversation. Due to the complex nature of sustainability factors in the clothing supply chain and manufacturing process, the decision was made to separate ethical sourcing and supply chain from the components such as Organic fabrics.

UCS Scores indicating relative importance of clothing purchase criteria: Of the 6 criteria identified, **Fit** was rated as being the most important factor with a UCS score of 25.94, followed by **Price** (23.45) and then **Quality** (20.53). Table 5 below illustrates the overall results for the factors influencing clothing related purchases.
### Table 6: Results indicating the relative importance of factors influencing Clothing purchase behaviour: All respondents

<table>
<thead>
<tr>
<th>Feature / Criterion</th>
<th>FIT</th>
<th>PRICE</th>
<th>QUALITY</th>
<th>BRAND APPEAL</th>
<th>ETHICAL SOURCING</th>
<th>ORGANIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Preference</td>
<td>Fit of the product is most important</td>
<td>Good value for money</td>
<td>High quality is very important when I buy clothes - I would rather buy clothes less often, but of high quality</td>
<td>I choose a brand because I KNOW WHAT TO EXPECT from it (Quality, Durability etc)</td>
<td>Supporting local Industry as much as possible is key</td>
<td>I will generally choose an organic product above non-organic clothing product where I can</td>
</tr>
<tr>
<td></td>
<td>2.42</td>
<td>2.11</td>
<td>1.57</td>
<td>1.1</td>
<td>0.81</td>
<td>0.48</td>
</tr>
<tr>
<td>Level of Preference</td>
<td>Fit is quite important, BUT it depends on the type of product or price of the product</td>
<td>Willing to pay a premium (+10% -15%) for product that has perceived benefits to it (i.e. such as non-iron, organic etc)</td>
<td>My quality expectations are linked to the type of product that I am buying. (Investment piece vs everyday wear)</td>
<td>I choose brands with a SOCIAL CONSCIENCE. (They do the right thing for the environment)</td>
<td>Knowing that workers’ conditions, working hours and wages are fair is important to me</td>
<td>Product being organic is not important to me</td>
</tr>
<tr>
<td></td>
<td>1.35</td>
<td>0.85</td>
<td>1.43</td>
<td>0.51</td>
<td>0.74</td>
<td>0.35</td>
</tr>
<tr>
<td>Lowest Preference</td>
<td>Fit is not that important - other factors are more important (such as fashionability, colour, price etc)</td>
<td>The lowest, most competitive price in the market</td>
<td>Clothing is seasonal. I prefer more variety rather than high quality</td>
<td>I choose brands that MAKES A STATEMENT about me (ie Cool &amp; Trendy)</td>
<td>Knowing where my clothing is manufactured, is important to me (Country of Origin)</td>
<td>I specifically look out for organically produced clothing</td>
</tr>
<tr>
<td></td>
<td>0.23</td>
<td>0.79</td>
<td>0.3</td>
<td>0.24</td>
<td>0.51</td>
<td>0.25</td>
</tr>
<tr>
<td>UCS: Overall Relative Utility of Feature</td>
<td>25.94</td>
<td>23.45</td>
<td>20.53</td>
<td>12.11</td>
<td>10.75</td>
<td>7.22</td>
</tr>
</tbody>
</table>
Individual Utilities indicating consumer preferences within the various levels of preference, Fit of the product was clearly identified as being the leading factor in clothing purchase decision making with the highest utility at 2.42. This was followed by good Value for Money with a UCS of 2.11. Value for money was more important to respondents than a low price, per se. This suggests that value for money did not have to entail a low price, but it could. The third most important factor was Quality at 1.57.

From a sustainability point of view, consumers valued supporting local industry and knowing that product is fair trade more than valuing product specifically being organic. Ethical sourcing was given a UCS weighting of 10.71 vs Organic product at 7.85.

The lowest utilities were an ill-fitting product (0.23), followed by buying a brand purely to make a statement (0.24) and looking out specifically for organic product at 0.25. Below follows a representation of the results:

As with Foods, T-tests to a ≤ 5% significance were conducted on the samples to determine any statistical significance in the variation of responses. Table 7 below contains the T-test results for Clothing. More complete details on these test results can be found in appendices D, E, F and G.

<table>
<thead>
<tr>
<th>Relative Importance of criterion in Purchase Decision</th>
<th>P Value</th>
<th>Result</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing Specific Fit</td>
<td>0.1879</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Clothing Specific Price</td>
<td>0.1119</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Clothing Specific Quality</td>
<td>0.0152</td>
<td>Statistically significant to ≤ 5%</td>
<td>More important to Men</td>
</tr>
<tr>
<td>Clothing Specific Brand</td>
<td>0.2394</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Clothing Specific Ethical Sourcing</td>
<td>0.9533</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Clothing Specific Being Organic</td>
<td>0.2941</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Clothing Specific Importance of Sustainability related factors</td>
<td>0.5569</td>
<td>Not statistically significant</td>
<td></td>
</tr>
<tr>
<td>Clothing Specific Importance of Other factors</td>
<td>0.8163</td>
<td>Not statistically significant</td>
<td></td>
</tr>
</tbody>
</table>

Table 7. T-test results summary indicating significance of variation in gender responses with regard to Clothing purchases.

1 Fit

Fit, in clothing purchases, was singled out as the most important criteria in the clothing purchase decision with a UCS score of 25.94 overall. However, disaggregating the responses by gender, women rated fit as more important than men did, however, this difference in gender response was not statistically significant.
2. Price

Price as a purchase criteria had a UCS of 23.45. However, within the genders lay interesting differences, with women being much more price sensitive than men when looking at the levels of preference within consumer behaviour. They placed more importance on value for money, and valued lowest competitive price in clothing more than men did. Men were more willing to pay a premium on clothing. Value for money (rather than just price) rated second highest overall from an individual utility point of view after good fit in the Conjoint Block. Overall, men weighted price as a purchase criteria at 21.32 and women at 23.8. Gender responses in variation, though different, were not statistically significant.

3 Quality

Clothing Quality rated third highest at a UCS of 20.53. High Quality clothing however, was weighted more heavily in importance as an individual utility by men than women (men weighted quality vs quantity at 1.95 compared with women at 1.5). Men weighted the importance of the criteria of quality in clothing overall at 22.96 where women rated it at 20.14. Very important however is that, across the 11 purchase criteria across both food and clothing, Quality (in clothing specifically) as an important criterion in determining purchase behaviour, was the only criterion where there was a significant statistical difference between genders with men attaching higher importance to it – yielding a P value of 0.0152 at ≤ 5% significance. Quality was statistically more significant to men than to women.

4 Brand appeal

In brand appeal, there were no significant variations within responses. Brand appeal in both cases ranked fourth with regard to level of importance.

5 Ethical Sourcing

Ethical sourcing as a decision criteria ranked fifth with a UCS of 10.75. Regarding the different levels within Ethical sourcing, women attached more importance to supporting local production and wanted reassurance that conditions of employment are good, compared to men. Men felt more strongly that supply and demand should determine where products are manufactured.
6 Organic Clothing

The overall UCS for Organic product in clothing was 7.22 (Men and Women at 7.85 and 7.12, respectively).

Summary: Sustainability vs ‘other factors’ in Clothing purchases

Sustainability-relevant criteria and ‘Other’ criteria had relative UCS scores of 18/100 and 82/100, respectively, indicating the high importance attributed to factors other than sustainability. Gender specific responses varied but it is key to note that, unlike the result in foods, gender responses to sustainability related criteria were not statistically significant. What did emerge in the survey, women placed more importance on ethical sourcing (local production, fair wages etc.) than men did, but this was more strongly evident in the qualitative text responses from respondents (discussion still to follow).

4.2.2.3 Relative importance of Features – Contrasting Food and Clothing

In order to ascertain the relative importance of sustainability related factors vs other factors in the purchase decision-making process, the various UCS scores of the key factors influencing Clothing and Food purchases were compared. The **UCS total for sustainability related factors for Clothing was 18/100, compared with that of Foods at 34/100.**

Breaking that down into gender specific results: sustainability related factors had a rating of 24.8/100 for men, where as it was 26.2/100 for women overall. Though there was a statistical significance in the gender responses with regard to sustainability related factors, this significance was limited to food product specifically.

Illustrated below in Table 6 as well as Figure 8 below, the relative UCS measures across food and clothing indicate that **sustainability related factors play a considerably more important role** in the consumer purchase decision in foods, than it does in clothing.
4.2.3. Qualitative Data Results

The following section will discuss the qualitative component of the Qualtrics questionnaire: Two broad questions were posed: The first related to customer expectations regarding company investment of resources into sustainability initiatives. The second enquired into customer insights with regard to environmental and social factors that might influence specifically clothing purchase decisions. Both of these will be discussed in the following section.

4.2.3.1 Customer Insights - Investment of company resources

In order to gauge what respondents expect retailers to invest funds, time and effort into, an open ended question eliciting text responses was posed to respondents. The question was: “What do
you expect retailers to be passionate about, and invest their time, effort and resources in?" Responses were recorded, coded and finally clustered into various themes. The World Bank in 2003 already stated that sustainable development necessitates strategies pursuing economic, environmental and social gains (World Bank as cited by Vermeir & Verbeke, 2006). These same themes these were identified in the text responses from respondents. These responses were then clustered and coded accordingly.

Social gains (20% of all comments): The cluster, People, contained 122 comments regarding socially relevant issues respondents felt retailers needed to be involved in. Sub-clusters emerged on issues such as local community involvement, charity, local job creation, supporting local entrepreneurs and providing healthy and safe product to consumers. Other sub-clusters that emerged was around internal business practices such as education of employees, paying decent wages, good working conditions.

Environmental gains (35% of all comments): The cluster, Planet, contained 211 comments that were environment specific: Themes emerged around the importance of sustainable business practices, reducing our carbon footprint, preserving our natural resources, water scarcity, electricity usage and farming for the future.

Economic Gains (15% of all comments): The cluster, Profit, contained 88 comments specific to providing value for money to the consumer, providing high quality products, investing in the SA economy and pursuing fair trade principles.

One particularly noteworthy theme that stood out and merits attention (106 specific comments and 17.5% of all comments) was the expectation of Locally-centered practices: supporting local initiatives, local production and sourcing and supporting small local businesses. Another theme identified (78 comments, 13% of responses) was the expectation of Ethical sourcing and business practices (honesty and integrity) as well as a concern for both human and animal welfare.

Below a visual representation of the themes and clusters.
Figure 9  Coding of text responses for Question 12 of Survey

The clustering of themes that is illustrated above in Figure 9 gives a quick snapshot at what occupies the consumer’s mind from a sustainability point of view. What it also presents, are the potential levers that the retailer can use to build brand affinity, brand loyalty and brand love with the consumer.

4.2.3.2 Customer insights on environmental and social factors that might influence clothing purchase decisions.

The literature review suggested that sustainability related factors tends to feature as less important in the purchase decision for Clothing than it is for Foods. Within this context, it was important to establish which other environmental or social factors might positively influence clothing sales with a particular retailer. The question posed was “What, if any, would be the most compelling environmental or social product characteristic that would make you purchase from a particular store?” 423 Responses were recorded, coded, and clustered into themes.

An especially dominant theme that re-emerged in responses to this particular question, was that of practices that support local industry as a priority. Respondents valued retailers supporting local industry and local production, and sourcing product locally as much as possible. 26% of all comments for this question (111 of the 423 comments) were dedicated specifically to local industry support as preferable to imports. A second dominant theme (35% of comments) emerging
from this question, was the importance of **Fair and Ethical trade agreements** and practices, and using environmentally sustainable products.

42 Respondents stated that environmental or social factors would have **no influence** on their purchase decisions as price, quality, style or value for money would be more important influencers. Furthermore, respondents expressed a desire for businesses to move towards using more natural fibres and organic product in clothing, rather than synthetic fibres. 15 other respondents specifically stressed the importance of retailer honesty and educating customers as to sustainable practices in clothing and what it means. Figure 10 below is a summary illustration of themes identified in responses.

![Figure 10 Coding of text responses for Question 13 of Survey](attachment:image)

4.3. **Summary:**

The Woolworths target market is LSM 8 – 10 which is reflected data from the sample group. Though the Woolworths database population has a bias towards women at 72%, this was evident even more so in the sample group at an 87% female response rate. For the purposes of interpretation of results, responses were disaggregated by gender in order to assimilate nuances that might be of interest to retailers. These differences were then tested for significance using T-tests.
Additionally, the sample race and age distribution of the sample had a higher representation of older as well as white respondents than the WW database population; with the black population under represented. With regard to geographical representation, the sample group was skewed towards respondents from the Western Cape, with the Gauteng region under represented. Due to constraints with regard to time, as well as keeping within the scope of the research, the researcher did not test for significance in variations in responses with regard to race, geographic region or age.

**Summarising the results pertaining to the First Research Question:** ‘*What is the relative importance of Sustainability to the South African Consumer as a criterion in making a purchase decision?*’ Through the use of adaptive conjoint analysis, consumers were able to allocate importance rating to the various purchase criteria. The higher the score, the more important the criterion to the consumer. The results revealed that the importance of sustainability related considerations were outweighed by ‘other factors’ to the ratio, 26:74 during the purchase decision. This indicates that with respect to Food and Clothing as a whole, sustainability does play a role in purchase decision making, but ‘other factors’ play a considerably more key role during the purchase decision making.

**Summarising results pertaining to the Second Research Question:** ‘*What are the differences in the relative importance of sustainability as a purchase criterion between Clothing and Food for the consumer?*’

The study results show Sustainability related factors influencing the purchase decision process were more important in Foods than in Clothing: In clothing ‘other factors’ influencing purchase decisions had a rating of 82%, whereas sustainability related factors had a rating of 18%. In the foods context, the results looked slightly differently with ‘other factors’ with a rating of 66% and sustainability related factors having a rating of 34%. During food purchases, consumers decisions were based on Quality, followed by Price and then Convenience, whereas in Clothing, Fit was the most important, followed by price and then Quality. Consumers were more willing to pay a premium for product that has a perceived benefit to it in foods than they were in clothing. Additionally, with clothing related purchases, consumers attached more value to product being locally sourced and manufactured, and knowing that fair trade practices were in place, than the organic nature of the product (i.e. product being organic cotton).

Key to this part of the research was that disaggregation of gender responses revealed a statistically significant difference between men and women’s perceptions on the importance of sustainability
related factors – but this pertained only to Food purchases. Women rated sustainability related factors as being more important than men did during Food purchases.

Equally important to retailers, is that the T-tests indicated a statistical significance in the gender variation of responses related to Quality with regard to Clothing purchases: Men rated high quality in Clothing significantly more important than women did.

**Summarising results pertaining to the Third Research Question:** ‘Which sustainability initiatives do customers expect from retailers?’

Respondents felt passionate (211 comments) about looking after the planet for future generations: Businesses are expected to support sustainable practices where a negative environmental impact is limited; to support recycling and to reduce their carbon footprint. The investment in People emphasis was a strong theme (with 122 comments), talking to community development, investment into training and staff, better internal work practices. Finally, (88 comments), profit was discussed. Respondents emphasised that fair trade and support of local industry and the SA economy needs to be a given. Delivering of Value (Quality at a good price) was a strong message.

Investment in the local economy was strongly emphasised, with 217 independent mentions regarding the importance of local production, local sourcing and stimulating the local economy.
5. DISCUSSION OF RESULTS

5.1 Introduction
This chapter will evaluate the results of the study within the broader context of existing research on the subject.

5.2 Demographic profile of respondents
Although 700 respondents started with the survey, only 558 completed it. In an era where time is an extremely valuable commodity, stimulation is immediate, and needing to perform under pressure is the norm, the conjoint survey itself might have been a frustratingly time consuming for a younger consumer and could possibly have contributed to 20% of respondents not finishing the survey. Tracking the demographics of the respondents who did not finish the survey, the majority of the non-completers consisted of younger, black consumer from Gauteng, the up and coming youth. An adaptive conjoint analysis questionnaire (especially since the survey was across both foods and clothing) is generally more time consuming and complex than the average questionnaire, and the sample demographics might have been impacted as a result. For this reason, the researcher compared the survey sample demographic with the Woolworths panel database population of 130,000 in order to evaluate how different the demographic distributions of respondents were compared to the WW database population overall.

Looking at the demographics in more detail: Discussed earlier is the bias of the sample group towards the female consumer. Females represented 87% of the sample population (vs 72% in the WW database). Additionally, a greater percentage of respondents were white (74% of respondents vs 56% of population), as well as being older on average. Other factors that might impact results, is that 76% of the respondents indicated that they were parents which could also influence their outlook on life, in terms of additional motivation to preserve the planet for their children and grandchildren.

Though the sample is not truly representative of the South African population, it does represent views of an educated, higher LSM consumer who has more disposable income. A customer where the luxury of being able to choose to make sustainable choices is a reality. For this reason, regardless of the skewing of the sample, the 558 responses to the survey were thought to reveal very pertinent insights for retailers who have a vested interests in sustainability.

5.3 Discussion pertaining to the first research Question: What is the relative importance of Sustainability to the South African Consumer as a criterion in making a purchase decision? The concept of sustainability, and what it means to individuals, is a broad one. One where the scope
for personal interpretation and attachment of subjective meaning, is significant. For this reason, being able to accurately “quantify” the importance of sustainability in real terms is elusive.

Conjoint analysis was used to determine which criteria consumers valued. Though the numeric value arrived at for the importance of sustainability related features could always be debated, the survey did highlight the following: Though ‘sustainability related factors’ were a consideration during the purchase decision, ‘other factors’ played a more important role during the purchase decision process. The conjoint study results indicated that sustainability related factors had a combined utility of 26/100 whereas ‘other factors’ had a combined utility of 74/100.

Hume, in 1991 (as cited by Kim & Choi, 2005) argued that the reason for the behaviour-attitude gap and thus why mindfulness about sustainability does not always translate directly into sales, is that environmental consciousness is future orientated and essentially has to do with a bigger picture. This tug of war between mindful consciousness and contradictory purchase behaviour, was evident in the survey: Though respondents (especially women) displayed a high degree of mindfulness regarding the humane and ethical treatment of animals and people, this did not translate into the UCS scores of these criteria overall when consumers were forced to make choices. At the point of purchase, the factors most important to consumers were quality and value for money in general which tied in with similar findings by Price Waterhouse Cooper (PWC, 2010).

The research indicated that customers are in favour of sustainability initiatives, but not at the expense of quality. This echoed Hume’s (1991) position that the purchase decision is based on a present reality and very personal need and not based on any future orientated view of the world. However, looking at the various individual utility levels within the consumer behaviour preference levels across the purchase criteria: Specific sustainability related features carry considerable weight in themselves with a UCS rating of 26/100 overall, but still, at the moment of truth, they are muted by the overall picture that emphasises mostly price (value) and quality across both food and clothing.

5.4 Discussion pertaining to the second research Question: What are the differences in the relative importance of sustainability as a purchase criterion between Clothing and Food for the consumer?

5.4.1 Clothing specific purchases
Role of clothing: The literature review suggests that clothing plays a more complex and personally significant role than a purely functional one. Various research studies conducted
(Joergens, 2006; Niinimäki, 2010; Ritch, 2012; O’Cass, 2004) suggest that for many, fashion is a way of signalling; it is used to express self-identity, signal status, or to portray a specific desirable image. Joergens and Niinimäki (cited above) found that style, fit, colour and texture played the most important role during clothing purchases – not sustainability related factors. These findings were echoed in the conjoint questionnaire for Clothing where the highest UCS value was for **Fit, followed by Price and then Quality** as purchase criteria. Looking at the various levels of preference of attributes across the 6 purchase criteria identified, it was clear that under the banner of price, the customer wanted good value for money, but not necessarily the best price. Worthy of note is the **significantly greater importance (statistically supported) that men placed on high quality in clothing compared to women. They were more open to paying a premium where quality or perceived benefit was evident and were overall slightly less price resistant than woman.**

**Perceived Product Benefit:**

Joergens (2006) and also Petit as cited by Beard (2008) argued that a lower level of commitment to sustainability in clothing is as a result of the benefits being less tangible to the consumer and more other-focused. It is not that personal to the consumer. From a clothing perspective, customers were reluctant to pay a premium for product benefits such as being organic which ties in with what Joergens (2006) and Beard (2008) suggested.

**Quality in clothing** was the one criterion where there was a **statistically significant difference between male and female attitudes.** Men rated quality in clothing as significantly more important as a purchase criterion than women did.

Value for money was important to the consumer – reflected in the higher utility rating attached to good value for money, as opposed to the most competitive price in the market. However, this could most possibly be a result of the highLSM grouping of the sample. Within the gender split, women in particular rated value for money as a very important purchase decision criterion – more so than men did.

**Brand association:** Looking into respondents’ relationships to brands, respondents attached importance to buying a specific brand, because they knew what to expect from it (be it quality, durability etc). In Cue utilization theory, Hansen (2005) suggested that consumers use cues such as brands to help them make a purchase decision during uncertainty. In the survey results, men attributed more value to Brand appeal overall than women did. (UCS score of 13.05 by men vs 11.95 by women).
However, brand association and supporting a brand as a result of their social conscience were rated relatively low relative to other, more dominant purchase criteria. This contradicts the findings of The Nielsen Company (2014), namely that, at the point of purchase, consumers were in favour of supporting brands reflecting a social conscience. Though this study’s results do not show a direct link to purchase behaviour, it is not unreasonable to speculate that being a brand with a conscience might help build a positive brand association and loyalty with the consumer though it might not be directly linked to a specific purchase.

Supply chain vs Organic Product: The complexity of the supply chain in clothing was discussed during the literature review. In order to gain a deeper understanding of what customers rated as more important, criteria related to supply chain & sourcing factors were separated from the criteria inherent organic nature of the product. What did emerge powerfully, was that supporting local industry and ethical practices (fair labour rates and conditions) were given more importance than the inherent nature of the product. This was especially evident in female respondents where the local production component and fair labour practices had an elevated level of importance. This could possibly be as a result of consumer buy-in to the more tangible benefits, for all, of investing in the local economy through local production and local sourcing, thus generating employment, with conceivable positive knock on effects on poverty and crime.

Interestingly, the South African consumer was very much aware of the country of origin labels, and aware of imports vs local. Dickson (2001) undertook a study to investigate to which extent labels on apparel (in her study, specifically ‘no sweat’ labels) would influence purchase decisions. Dickson found that only a very small percentage of the market would be influenced by the label. In contrast to this, a total of 227 respondents specifically commented on supporting local production as opposed to importing apparel; showing a level of importance with regard to country of origin. Again, emerging from various comments was the expectation of quality and value for money, signifying that there cannot be a compromise on those key factors. This was echoed in the Nielsen research (The Nielsen Company, 2014) where results clearly indicated that a compromise on quality was not acceptable to the consumer.

5.4.2 Food specific purchases

One of the three factors that Kang et al (2013) identified as being influential in consumer attitudes and behaviours towards Environmentally sustainable product, is Perceived Personal Relevance. Tying into that, Ritch (2012) stated that where consumers perceive that there is a direct, personal benefit and value to them, they would be more prone to consumption of ESPs. This was very much evident in two aspects of the conjoint results: Firstly in the relatively higher UCS rating of the
sustainability related criteria in Foods relative to Clothing. And secondly, the very high UCS score that food of a high quality had as an overall purchase criterion that influenced purchase behaviour. The UCS score of Quality within food purchases was 28.44. Compared to the importance rating that Quality was given in clothing of 19.89, the shift in the underlying consumer behaviour is apparent. The consumption of quality food has a very personal direct benefit and significance to the consumer and it is apparent in its high UCS score.

The PWC study in 2010 found that in foods, the most important purchase criteria are Value for money, Quality and Convenience (PWC, 2010) which reflected similar patterns as the Foods Conjoint questionnaire results. However, it is important to note the subtle differences that the survey responses revealed within individual utility scores, within the criteria:

**Perceived Product Benefit**: With regard to the willingness of the consumer to pay a premium for food products, as compared with clothing products, with a perceived benefit (i.e. being organic, free range etc.): The relative utility score for paying a premium for Food with a perceived benefit, was 1.09, in contrast to Clothing, at 0.85. Women generally tended to be more price resistant, and getting the best price was more heavily weighted by them than by men.

After Quality, individual utility ratings on ‘Food being 100% free of anti-biotics or hormones’ was the second most important criteria (1.57); respondents rated this as more important than paying average market prices. Women in particular, wanted to be reassured that food products did not contain any anti-biotics or hormones. (Again, this is indicative for the high LSM 8 – 10 consumer, but probably not for the broader SA population).

**Convenience**: Though convenience was the third most important purchase criterion in Food, the relative individual utility score of being happy to drive 5 – 10 km to get to a specific score was 1.3. A close second to convenience, was humane and ethical treatment of animals – displaying the tension of going to the closest store vs driving a short distance to support a retailer that has free range product. However, this is claimed behaviour rather than actual behaviour which might bias responses towards being kinder.

**Value for money / Price:**

**Value for Money** as a purchase criterion was rated as being more important in Clothing than it was in Foods. Under clothing, good value for money had a utility rating of 2.11, whereas there was not a big difference in utility between paying an average market price and paying premium for Foods with a tangible organic difference. Price as a purchase criteria have a UCS of 19.89 in
Foods vs 23.45 in Clothing, indicating that price is a more important in the transaction for Clothing than it would be for Food.

### 5.5 Discussion pertaining to the third research Question: Which sustainability initiatives do customers expect from retailers?

In 2001, Reheul et al (as cited by Vermeir & Verbeke, 2006) described sustainable products to be products that make a positive contribution from an Economic (fair prices to both consumers and producers), Ecological (custodians of environment, animals and natural resources) and Social (integration into the needs and development of local society) point of view. Along similar lines, the concept of Triple Bottom Line speaks to investment of business into People, Profit and the Planet. Regardless of which of these is chosen as reference, they both reflect the same general principles: Looking further than just tomorrow and wider than just your neighbour when doing business. It is about investing into the future, today.

Following on from what consumers expect from retailers from an investment in sustainable initiatives point of view: Customers stated that it is important to them that Retailers:

- Support local production, local sourcing, local industry development, and local job creation.
- Deliver value to the consumer whilst delivering quality. Be honest about ethical business practices and make the right choices on behalf of the consumer (health).
- Invest into local communities, fair trade agreements, charity, investment into people, uplift communities.
- Be cognisant of the environmental impact of doing business, minimize their carbon footprint, support farming for the future and recycling initiatives.
- From a Clothing specific point of view, supporting of local production vs imports was a dominant theme that surfaced.
- From a Clothing specific point of view, use of more natural fibres in clothing.

Whether pursuing the above initiatives will translate into more sustainable consumer purchase behaviour is debatable. However, it will help build brand loyalty and brand love. So the business investment is into building a loyal customer base – and in the process doing the right thing from a sustainability point of view – without compromise on quality, and minimal compromise on price.
6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction
In this chapter the major research findings are summarised. In evaluating these results, the limitations of the study are considered, as they will have bearing on the generalisability of the research. Finally, based on the findings of the study, recommendations are made, along with suggestions for potential future research.

6.2 Summary of major research results
Sustainability has become much more than just a buzzword in business. The retail landscape has evolved and a different code of conduct is becoming the norm; customers as well as shareholders are expecting retailers to act as responsible, transparent corporate citizens, proactively addressing the impact of their business practises on the environment, society and on the economy. Corporate Financial statements report on which sustainability initiatives organisations are investing in on their journey to being “greener”. Within this context, organisations are increasingly investing in sustainability initiatives, and the objective of the research was essentially to assess to what extent the consumer values these investments. Specifically, it was to determine the relative importance of sustainability as a consumer purchase criterion in the SA context and, within that, to understand the differences in the importance of sustainability to the consumer with respect to purchasing of food vs clothing.

Based on criteria identified by the focus group as being important in the consumer purchase decision making, and drawing on previous research done in the area, the following criteria were used in the conjoint study to determine the relative importance of sustainability in the purchase decision. It is notable that the topic of sustainable product or practices did not surface naturally during the clothing discussion, though it did during the discourse on foods.

<table>
<thead>
<tr>
<th>Criteria that influence purchase decisions:</th>
<th>FOOD</th>
<th>CLOTHING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convenience</td>
<td>Price</td>
<td></td>
</tr>
<tr>
<td>Price</td>
<td>Fit</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>Quality</td>
<td></td>
</tr>
<tr>
<td>Organic</td>
<td>Brand</td>
<td></td>
</tr>
<tr>
<td>Freshness</td>
<td>Fashionability</td>
<td></td>
</tr>
</tbody>
</table>
For the purposes of the research, ‘sustainability related factors’ for both clothing and foods were divided into an organic component (organic cottons, meat being anti-biotics free etc.) and an ethical component (labour practices, humane treatment of animals). The objective was to gain an insight into underlying motivations for specific behaviour and whether there is a difference in behavioural attitude (i.e. is behaviour other focused or self focused).

Consolidating the results from the Food and Clothing conjoint studies, and separating ‘sustainability related factors’ and ‘other factors’, it was established that sustainability related factors had a UCS score of 26/100 whereas ‘other factors’ had a UCS of 74/100 as figure 11 below depicts.

![Figure 11. Graphic representation of the relative importance of factors influencing consumer purchase decisions](image)

This suggests that though sustainability related factors are a part of the decision making criteria, relative to other factors, respondents weighted ‘other factors’ as considerably more important.

In exploring what the differences would be with regard to purchase decision making comparing Food and Clothing, the research established the following:

**6.2.1 Food purchases:** The criterion rated most highly during the purchase decision making for Food was Quality, followed by Price and thirdly Convenience. The table below depicts the UCS scores of each criterion. The higher the score, the higher the customer weighting as the factor being important:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>UCS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>82</td>
</tr>
<tr>
<td>Price</td>
<td>66</td>
</tr>
<tr>
<td>Convenience</td>
<td>34</td>
</tr>
</tbody>
</table>

The Relative Importance of Factors influencing Consumer purchase decisions

Copyright UCT
As can be seen in Figure 12 below, quality as a purchase criterion during food purchases was convincingly weighted as being the most important for consumers.

![Figure 12 UCS ratings for Food related purchase criteria](image)

Though the UCS for sustainability related factors were only 34/100, product being hormone and antibiotics free, as well as humane treatment of animals as individual utilities were in the 5 highest rated utilities. However, overall Quality of the food, Price and Convenience remained the leading purchase criteria.

6.2.2 Clothing purchases: The criteria weighted as most important during the Clothing purchase decision was Fit of the product, followed by Price and thirdly Quality as can be seen from Figure 13 below.

![Figure 13 UCS ratings for Clothing related purchase criteria](image)

When comparing the Sustainability related factors UCS weighting of Clothing at 18/100 to Foods at 34/100, it is clear that, as the literature suggests, closing the attitude behaviour gap in foods is relatively easier than in clothing due to the personal nature of the consumption. Additionally, the role of clothing in a modern society is loaded and complex as various other factors are at play that affect decision making. Clothing is often about
self-identity or projecting an image. At the same time, there is a sense of being more detached from sustainability issues in clothing, which might go towards explaining the relatively low UCS rating that sustainability related factors were given in clothing by respondents.

6.2.3 Customer Expectations. Finally, with regard to retailers investing in sustainability related initiatives, the following emerged: Consumers felt passionate about retailers investing in all three components of People (through social and community investment, education and training of people and social initiatives), Planet (environmental initiatives reducing carbon footprint) and Profit (providing quality product at fair prices to consumers, Fair trade with suppliers and investing in the local economy). A strong emerging thread was that consumers wanted retailers to invest more in local production and sourcing, and particularly with regard to clothing, import less from the east. Furthermore, respondents wanted retailers be honest and ethical and transparent with regard to business practices.

It seems that, especially in clothing, asking consumers to make sustainable decisions due to the virtue that lies in the act itself, would be an unrealistic ask. Respondents were clear about wanting value for money (not necessarily cheap), they want quality product, and in clothing, they want a great fitting garment. Though respondents weighted specific factors (such as ethical treatment of animals and fair trade practices) highly individually, the overriding weighting of sustainability related factors lag behind those of quality, price, convenience and fit (for clothing). So investing in sustainability might need to fall under the banner of building brand loyalty and brand love. Respondents in the survey expressed appreciation for the sustainable initiatives that Woolworths is already involved in. Consumers feel reassured in the knowledge that the retailer is making sustainable choices on their behalf. They want to know about it. Doing the right thing from a sustainability point of view as a business then lies in delivering product that has sustainable attributes, but not at the cost of fit, style, quality or price.

6.3 Recommendations For Businesses
Based on the findings of the research the following recommendations can be useful to retailers in the LSM 8 – 10 segment.
6.3.1 The role of marketing

Consumers want to be informed about the benefits of a product. Focusing on communicating this clearly will help position sustainability in clothing as relevant to preserving our future. This is congruent with findings from previous research done (Vermeir & Verbeke, 2006).

There is an opportunity to leverage Ajzen’s Theory of Planned Behaviour: if the consumer understands that their purchase choices contribute to a better future, this helps with conversion to more sustainable consumption behaviour (for example, informing consumers regarding the real ‘cost of fashion’, and the role they play in supporting a vision of a better tomorrow).

It is advisable to demystify sustainability—particularly in clothing. In informing the consumer about sustainability initiatives, speak the customer’s language: What makes the product sustainable? Fabric used / processes? This will conceivably create a greater connection with the consumer which is currently underplayed.

The consumer is interested in local sourcing and local production. It is tangible and personally relevant to them in the SA context. Where there are local initiatives, ensure that they are clearly communicated and celebrated. It presents an opportunity to build loyalty with local consumers in the face of increasing international competition.

Ramirez (2013) warned against green washing any products. Companies should dedicate themselves to articulating benefits and developing offerings that are environmentally, economically and socially sound. The survey feedback highlighted the importance of trust and transparency. Greenwashing is at an organisation’s own peril; the consumer can be a harsh judge when deceived.

6.3.1.1 Marketing Frameworks for refining an existing sustainability strategy:

Drawing on the concepts discussed above, the following frameworks can guide retailers who has identified sustainability as part of their competitive advantage strategy. A tool for retailers who are actively pursuing attracting greater buy-in from environmentally conscious consumers, such as the beginner voluntary simplifiers referred to in the literature.

From a marketing point of view, the model focuses on two dimensions: One, a strategic marketing focus which has as its objective strategies to build brand image, brand love and create a halo effect for the brand. It is about creating an emotional connection. But in addition to that, encouraging more sustainable consumption behaviour in consumers by
making the concept more personal. Two, strategies to deliver on the strategic focus of the business which is how to attract new consumers, and at the same time, retain existing consumers.

In Figure 14 below, a depiction of the model for foods:

**Figure 14. Role of Marketing - Foods**

The opportunity for business lies in attracting and conversion of new users, and of future generations as McDonald et al. (2006) indicated in their research on Beginner Voluntary Simplifiers. In the Foods framework, Quality product, Hormone and additives-free product, as well as an ethical component to the process is important to the consumer. These are strategic levers that can be pulled to enable greater consumer engagement with sustainability.
The same framework can be applied to the **Clothing market**, but with a slightly different focus as sustainability is **NOT** top of mind: Sustainability in Clothing is an add-on and nice to have. Secondary to Fit and Value for money. This suggests a slightly different conversation with the clothing consumer than with the foods consumer. The Clothing model is depicted in figure 15 below.

**Factors top of mind for the higher LSM customer for Foods**

- Respondents felt very strongly about **no antibiotics or hormones** in Food product.
- There is slightly more room to request a **premium on pricing in Foods** than there is on Clothing.
- **Sustainability related factors** in Foods plays a significantly more important role as a decision criterion for **women** that it does for men.
Factors top of mind for the higher LSM customer for Clothing

- **Fit is most critical** for the consumer above all other purchase criteria.
- **Quality** is significantly more important to men than it is to women
- **Locally produced or locally sourced** Products as opposed to imports. However, this cannot be at the expense of quality.
- There was an interest into Clothing with **more natural fibres and yarns** – less synthetic product.
- In Clothing **value for money** is very important to the consumer. Especially women want to feel they are getting a great deal. Ensuring that value is communicated clearly to the consumer is important in Clothing.

6.3.1.2 Marketing Frameworks for establishing New Markets

The previous frameworks can act as a guide retailers that are already familiar with their customers and has existing sustainability strategies in their business. However, in the case where customer expectations on sustainability are unknown (for example a lower LSM band), a broader, more exploratory model can be of use as is depicted in Figure 16 below.

As the retailer identified consumer attitudes, specific strategies can be formulated around each of these; each with a unique approach, and different touch points.
6.4 Limitations of the research

The following are limitations of the research:

- The sample was based on the LSM 8 – 10 customer which limits generalisability of findings to the general SA population.
- The sample demographics were skewed towards the female consumer, who might differ from men in their attitude towards sustainability.
- Results were based on stated purchase behaviour intentions rather than actual purchase behaviour.
- The representation of the younger consumers view was limited in the sample; it could partly be as a result of the type of measuring instrument used.

6.5 Suggestions for further research

- Conducting a study focusing on the younger consumer and how sustainability fits into their frame of reference.
- Conducting this similar study, but using a tool that would allow access to a wider LSM and also a wider generational and race spread.
- Comparing the relative claimed importance of sustainability to actual consumption and seeing what the correlation is and in which factors might drive higher correlations.
REFERENCES


Appendix A: Research Instrument used

Qualtrics online survey

Dear Respondent,

The following questionnaire will take about ten minutes to complete. Your answers will be strictly confidential, so please answer as honestly as possible based on your actual purchase behaviour rather than a perceived ‘ideal’ answer.

These findings will be used in an academic study and only aggregate findings will be reported. This questionnaire is completely anonymous. By completing this questionnaire, you as respondent, implicitly give consent to take part in the research study. Be aware that participation is voluntary, and that you understand that you may withdraw at any point in time without any adverse consequences.

If you have any questions, or if you would like to have access to the findings, please don’t hesitate to contact Ragna Nilssen (ragna.nilssen@gmail.com).

The survey will consist of three parts: Food purchases, Clothing purchases and General information:

Part 1: The following questions relate to FOOD specific purchases. Please answer the following questions based on your general food shopping behaviour.

When doing your FOOD purchases, which of the following factors or aspects would you consider most important and which least important? For each of these factors listed below, please select one that you MOST prefer (most important) and one that you LEAST prefer (least important). Please note: Should the survey not allow you to move to the next page, please check that you have selected BOTH a most preferred AND a least preferred option for EACH factor. This will allow you to move to the next page.

Food purchases: CONVENIENCE

Least Preferred

Most Preferred

Food purchases: PRICE (Product: such as chicken, fish, meat)

Least Preferred

Most Preferred

Food purchases: QUALITY

Least Preferred

Most Preferred

Food purchases: HUMANE AND ETHICAL TREATMENT of animals (chicken, meat, eggs)

Least Preferred

Most Preferred

Food purchases: ORGANIC Product characteristics: (chicken, meat, eggs)

Least Preferred

Most Preferred

In the previous questions, you rated the following as your most preferred options overall. Now, please allocate a total of 100 percentage across the five different features on Convenience, Price, Quality etc. The higher your percentage allocation per feature, the more important this feature is to you. The total across the five features should sum to 100%.

Feature

Level

Importance

Food purchases: CONVENIENCE

Average market price

Food purchases: PRICE (Product: such as chicken, fish, meat)

Slightly lower Quality, but not unacceptable

Food purchases: QUALITY

Total:

In the previous questions, you rated the following as your most preferred options overall.

Now, please allocate a total of 100 percentage across the five different features on Convenience, Price, Quality etc. The higher your percentage allocation per feature, the more important this feature is to you. The total across the five features should sum to 100%.
Part 2: The following questions relate to CLOTHING specific purchases. Please answer the following questions based on your *general* clothing shopping behaviour.

When doing your CLOTHING purchases, which of the following factors or aspects would you consider most important and which least important? For each of these factors listed below please select one that you MOST prefer (most important) and one that you LEAST prefer (least important).

Clothing purchases: **PRICE** (eg Chino Trousers, shirts etc)
- The lowest, most competitive price in the market
- Willing to pay a premium (+10% - 15%) for product that has perceived benefits to it (i.e. such as non iron, organic etc)
- Good value for money

Clothing purchases: **FIT of the product (Feel and fit of product on body)**
- Fit is most important
- Fit is quite important, but it depends on the type of product or price of the product
- Fit is not that important, other factors are more important (such as fashionability, colour, price etc)

Clothing purchases: **QUALITY**
- High quality is very important when I buy clothes. I would rather buy clothes less often, but of a high quality
- My quality expectations are linked to the type of product that I am buying (investment piece vs everyday wear)
- Clothing is seasonal. I prefer more variety rather than high quality

Clothing purchases: **BRAND APPEAL**
- I choose a brand because I KNOW WHAT TO EXPECT from it (Quality, Durability etc)
- I choose brands that MAKES A STATEMENT about me (It Cool & Trendy)
- I choose brands with a SOCIAL CONSCIENCE (They do the right thing for the environment)

Clothing purchases: **ETHICAL SOURCING in Supply Chain**
- Knowing where my clothing is manufactured, is important to me (Country of Origin)
- Supporting local industry as much as possible is key
- Knowing that workers' conditions, working hours and wages are fair is important to me

Clothing purchases: **ORGANIC materials (eg Organic Cotton Shirt)**
- I specifically look out for organically produced clothing
- I will generally choose an organic product above non organic clothing product where I can
- Product being organic is not important to me

You've provided your most and least preferred options in the previous section. Your least preferred/least important option carries a score of 0 and your most preferred/most important option a score of 10. Now, please rate each of the remaining options on the scale of 1 to 9 (provided):

Clothing purchases: **PRICE** (eg Chino Trousers, shirts etc)
- The lowest, most competitive price in the market
- Willing to pay a premium (+10% - 15%) for product that has perceived benefits to it (i.e. such as non iron, organic etc)
- Good value for money

Clothing purchases: **FIT of the product (Feel and fit of product on body)**
- Fit is most important
- Fit is quite important, but it depends on the type of product or price of the product
- Fit is not that important, other factors are more important (such as fashionability, colour, price etc)

Clothing purchases: **QUALITY**
- High quality is very important when I buy clothes. I would rather buy clothes less often, but of a high quality
- My quality expectations are linked to the type of product that I am buying (investment piece vs everyday wear)
- Clothing is seasonal. I prefer more variety rather than high quality

Clothing purchases: **BRAND APPEAL**
- I choose a brand because I KNOW WHAT TO EXPECT from it (Quality, Durability etc)
- I choose brands that MAKES A STATEMENT about me (It Cool & Trendy)
- I choose brands with a SOCIAL CONSCIENCE (They do the right thing for the environment)

Clothing purchases: **ETHICAL SOURCING in Supply Chain**
- Knowing where my clothing is manufactured, is important to me (Country of Origin)
- Supporting local industry as much as possible is key
- Knowing that workers' conditions, working hours and wages are fair is important to me

Clothing purchases: **ORGANIC materials (eg Organic Cotton Shirt)**
- I specifically look out for organically produced clothing
- I will generally choose an organic product above non organic clothing product where I can
- Product being organic is not important to me

In the previous questions, you rated the following as your most preferred options overall. Now, please allocate a total of 100 percentage across the six different features (i.e. Price, Fit, Quality etc.) the higher your percentage allocation per feature, the more important that feature is to you. The total across the six features should sum to 100%.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Level</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing purchases: <strong>PRICE</strong> (eg Chino Trousers, shirts etc)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing purchases: <strong>FIT of the product (Feel and fit of product on body)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing purchases: <strong>QUALITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing purchases: <strong>BRAND APPEAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing purchases: <strong>ETHICAL SOURCING in Supply Chain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing purchases: <strong>ORGANIC materials (eg Organic Cotton Shirt)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Part 3: General Information:

#### What is your age bracket?
- 18-25
- 26-35
- 36-45
- 46-55
- Over 56

#### Gross Household Income per Month
- Less than R7500
- R7 001 - R15 000
- R15 001 - R20 000
- R21 001 - R45 000
- R45 001 - R85 000
- More than R85 000

#### Gender
- Male
- Female

#### Do you have children?
- Yes
- No

#### Highest Level of Education
- Grade 10
- Grade 11
- College
- University
- Post graduate degree
- Other

---

[Copyright UCT]
### Consistency Matrix:

<table>
<thead>
<tr>
<th>Sub Problem</th>
<th>Literature review - most important ref to use</th>
<th>Research Questions: based on Lit Review before</th>
<th>Sources of Data: methods of data collection &amp; Actual questions</th>
<th>Type of data (nominal / ordinal etc)</th>
<th>Analysis methods</th>
</tr>
</thead>
</table>
| To establish the relative importance of sustainability as a purchase criterion | * Ajzen & Fishbein (1970): Theory of Planned Behaviour  
* Mindful consumption (Shah, Sadia Simarai)  
* Ramloak (2013): mobile range theory that consumers: disposition and perception as an barrier, and perception of marketers’ competencies and consumer benefits encourage adoption. | What is the relative importance of Sustainability to the South African Consumer as a criterion in making a purchase decision? | Focus Group  
Open-ended questions and exploratory interaction | Nominal data | Qualitative analysis  
Exploring shopping behaviour and patterns.  
Exploiting underlying themes  
Determining underlying purchase criteria |
* Vermeire & Verbeke (2009): Sustainable food consumption (attitude-behavioural gap)  
* High consumer involvement, certainty, PCE important determinants  
* de Barredeos (2011): Fiq framing and post related consumption behaviour - weak link Knowledge weak leading to low action | Conjoint Questionnaire: Questions 1 - 12 | Ordinal Data | Quantitative Analysis  
Conjoint Analytic Cluster Analysis |
| To gain insight as to the differences in the relative importance of sustainability to the consumer when comparing attitudes towards purchase of Food vs Clothing | * Jorgensen (2006): Lack of knowledge on what “made in” information means ethically (complexity of supply chain). Strongest predictor of purchasing - social appeal. Personal needs come before environmental  
* Ninimahela (2010): study on internal drivers of decision making process in apparel. How one clothing is intertwined with consumers self-identity and ideology. Linked to environment focused on either being individual - or collective benefit focused. Found that price, style and fashionability and Quality more important purchase criteria than ethically.  
* Broedsebel et al. (2016): investigating whether knowledge of the environmental impact of textiles and apparel production will influence consumers to purchase more environmentally friendly apparel. Knowledge alone not enough, need concern for environment as well.comb of those 2 might result in changing consumption patterns  
* Ritch (2012): extending sustainability from food to fashion.  
* Consumer Knowledge, PCE, Perceived personal relevance (Kim & Kwon - 2012) (findings supported by Kim & Choi (Vermeire & Verbeke 2008)) | Conjoint Questionnaire: Questions 12 - 24 | Ordinal Data | Quantitative Analysis  
Conjoint Analytic Cluster Analysis |
| To understand customer expectations from retailers with regard to sustainability initiatives | * Herpegn, Pennings & Meuleme (2003); Consumer evaluation of CSR activities | Which sustainability initiatives do customers expect from retailers? | Questionnaire 25 - 32 | Ordinal Data | Cluster Analysis |
| Behaviour patterns:                                                        | * Roberts (1996); PCE the most effective method to predict Environmentally Sustainable consumption behaviour - hence a very important level.  
* Young et al (2008): Micro purchase decision process of green consumers. Obstacles are lack of info on green products, time, brand preference.  
* Kang et al. (2013); CPE and PPE in determining consumption of BSTAs | N/A | N/A | N/A | N/A |
Appendix C: Cover Letter to the Questionnaire

A Graduate School of Business Survey

Date 15 September 2015

The Objective of the Survey is to determine the Relative Importance of Sustainability as a criterion in the Consumer Purchase Decision, comparing Food and Clothing purchase choices.

The Questionnaire should take approximately 10 minutes to complete. All information captured in this survey is completely anonymous. Your participation in the Survey is voluntary and you can choose to withdraw at any point in time.

This research study has been approved by the ‘Ethics in Research’ Committee at the Graduate School of Business in Cape Town.

For any Questions or Queries regarding the research, please feel free to contact Ragna Nilssen at the following mail address: ragna.nilssen@gmail.com

Your participation in this Survey is greatly appreciated!
Appendix D: T-test results for gender differences – FOODS

### FOOD - SUSTAINABILITY RELATED FACTORS

#### Unpaired t test results:
- **P value and statistical significance:** The two-tailed P value equals 0.0389
  - **By conventional criteria, this difference is considered to be statistically significant.**

#### Confidence interval:
- The mean of Group One minus Group Two equals -1.774
- 95% confidence interval of this difference: From -3.460 to -0.089

#### Intermediate values used in calculations:
- \( t = 2.0680 \)
- \( df = 1114 \)
- Standard error of difference = 0.858

#### Summary of Data:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>15.474</td>
<td>7.616</td>
<td>0.614</td>
<td>154</td>
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<tr>
<td>Women</td>
<td>17.248</td>
<td>10.201</td>
<td>0.329</td>
<td>962</td>
</tr>
</tbody>
</table>

### FOOD - Other factors

#### Unpaired t test results:
- **P value and statistical significance:** The two-tailed P value equals 0.1537
  - **By conventional criteria, this difference is considered to be not statistically significant.**

#### Confidence interval:
- The mean of Group One minus Group Two equals 1.28
- 95% confidence interval of this difference: From 0.48 to 3.05

#### Intermediate values used in calculations:
- \( t = 1.4271 \)
- \( df = 1671 \)
- Standard error of difference = 0.899

#### Summary of data:

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<thead>
<tr>
<th>Group</th>
<th>Mean</th>
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<th>SEM</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>23.12</td>
<td>13.27</td>
<td>0.88</td>
<td>230</td>
</tr>
<tr>
<td>Women</td>
<td>21.83</td>
<td>12.56</td>
<td>0.33</td>
<td>1443</td>
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</tbody>
</table>

### FOOD - Price

#### Unpaired t test results:
- **P value and statistical significance:** The two-tailed P value equals 0.0918
  - **By conventional criteria, this difference is considered to be not quite statistically significant.**

#### Confidence interval:
- The mean of Group One minus Group Two equals 2.24
- 95% confidence interval of this difference: From 0.37 to 4.85

#### Intermediate values used in calculations:
- \( t = 1.6891 \)
- \( df = 555 \)
- Standard error of difference = 1.327

#### Summary of data:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>21.83</td>
<td>11.74</td>
<td>1.35</td>
<td>77</td>
</tr>
<tr>
<td>Women</td>
<td>19.59</td>
<td>10.58</td>
<td>0.48</td>
<td>481</td>
</tr>
</tbody>
</table>

### FOOD - Convenience

#### Unpaired t test results:
- **P value and statistical significance:** The two-tailed P value equals 0.9084
  - **By conventional criteria, this difference is considered to be not statistically significant.**

#### Confidence interval:
- The mean of Group One minus Group Two equals 1.43
- 95% confidence interval of this difference: From 0.19 to 2.67

#### Intermediate values used in calculations:
- \( t = 1.1511 \)
- \( df = 556 \)
- Standard error of difference = 1.327

#### Summary of data:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>17.83</td>
<td>12.13</td>
<td>1.35</td>
<td>77</td>
</tr>
<tr>
<td>Women</td>
<td>17.67</td>
<td>11.51</td>
<td>0.48</td>
<td>481</td>
</tr>
</tbody>
</table>

### FOOD - Quality

#### Unpaired t test results:
- **P value and statistical significance:** The two-tailed P value equals 0.0548
  - **By conventional criteria, this difference is considered to be not quite statistically significant.**

#### Confidence interval:
- The mean of Group One minus Group Two equals -2.251
- 95% confidence interval of this difference: From -4.549 to 0.047

#### Intermediate values used in calculations:
- \( t = 1.9241 \)
- \( df = 556 \)
- Standard error of difference = 1.170

#### Summary of data:

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>Men</td>
<td>15.364</td>
<td>6.857</td>
<td>0.781</td>
<td>77</td>
</tr>
<tr>
<td>Women</td>
<td>17.614</td>
<td>9.887</td>
<td>0.451</td>
<td>481</td>
</tr>
</tbody>
</table>

### FOOD - Humane and Ethical treatment of Animals

#### Unpaired t test results:
- **P value and statistical significance:** The two-tailed P value equals 0.0548
  - **By conventional criteria, this difference is considered to be not quite statistically significant.**

#### Confidence interval:
- The mean of Group One minus Group Two equals -1.43
- 95% confidence interval of this difference: From -2.55 to 0.67

#### Intermediate values used in calculations:
- \( t = 1.8996 \)
- \( df = 556 \)
- Standard error of difference = 1.587

#### Summary of data:

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<tr>
<th>Group</th>
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<th>SD</th>
<th>SEM</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>29.68</td>
<td>13.19</td>
<td>1.5</td>
<td>77</td>
</tr>
<tr>
<td>Women</td>
<td>28.25</td>
<td>12.89</td>
<td>0.59</td>
<td>481</td>
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</tbody>
</table>
Appendix E: T-test results for gender differences – FOODS CONT.

<table>
<thead>
<tr>
<th>FOOD - Organic Nature of Food</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unpaired t test results:</strong></td>
</tr>
<tr>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.3019</td>
</tr>
<tr>
<td><strong>By conventional criteria, this difference is considered to be not statistically significant</strong></td>
</tr>
</tbody>
</table>

| Confidence interval: |
| The mean of Group One minus Group Two equals -1.298 |
| 95% confidence interval of this difference: From -3.767 to 1.170 |

| Intermediate values used in calculations: |
| t = 1.0332 |
| df = 556 |
| **standard error of difference = 1.256** |

<p>| Summary of data: |</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15.584</td>
<td>16.883</td>
</tr>
<tr>
<td>SD</td>
<td>8.35</td>
<td>10.503</td>
</tr>
<tr>
<td>SEM</td>
<td>0.952</td>
<td>0.479</td>
</tr>
<tr>
<td>N</td>
<td>77</td>
<td>481</td>
</tr>
</tbody>
</table>
### Appendix F: T-test results for gender differences – TEXTILES

#### CLOTHING - SUSTAINABILITY RELATED FACTORS

<table>
<thead>
<tr>
<th>Unpaired t test results:</th>
</tr>
</thead>
<tbody>
<tr>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.5569</td>
</tr>
<tr>
<td>By conventional criteria, this difference is considered to be not statistically significant</td>
</tr>
<tr>
<td>Confidence interval:</td>
</tr>
<tr>
<td>The mean of Group One minus Group Two equals 0.340</td>
</tr>
<tr>
<td>95% confidence interval of this difference: From -0.796 to 1.475</td>
</tr>
<tr>
<td>Intermediate values used in calculations:</td>
</tr>
<tr>
<td>$t = 0.5876$</td>
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<td>$df = 1114$</td>
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<tr>
<td>Standard error of difference = 0.578</td>
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<tr>
<td>Summary of data:</td>
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<td>Group</td>
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<tr>
<td>Mean</td>
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<tr>
<td>SD</td>
</tr>
<tr>
<td>SEM</td>
</tr>
<tr>
<td>N</td>
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</tbody>
</table>

#### CLOTHING - OTHER FACTORS

<table>
<thead>
<tr>
<th>Unpaired t test results:</th>
</tr>
</thead>
<tbody>
<tr>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.8163</td>
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<tr>
<td>By conventional criteria, this difference is considered to be not statistically significant</td>
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<tr>
<td>Confidence interval:</td>
</tr>
<tr>
<td>The mean of Group One minus Group Two equals -0.170</td>
</tr>
<tr>
<td>95% confidence interval of this difference: From -1.605 to 1.266</td>
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<tr>
<td>Intermediate values used in calculations:</td>
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<tr>
<td>$t = 0.2323$</td>
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<td>$df = 2230$</td>
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<td>standard error of difference = 0.731</td>
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<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
<tr>
<td>SEM</td>
</tr>
<tr>
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</table>

#### CLOTHING - Fit

<table>
<thead>
<tr>
<th>Unpaired t test results:</th>
</tr>
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<tbody>
<tr>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.1579</td>
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<tr>
<td>By conventional criteria, this difference is considered to be not statistically significant</td>
</tr>
<tr>
<td>Confidence interval:</td>
</tr>
<tr>
<td>The mean of Group One minus Group Two equals -2.14</td>
</tr>
<tr>
<td>95% confidence interval of this difference: From -5.10 to 0.83</td>
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<tr>
<td>Intermediate values used in calculations:</td>
</tr>
<tr>
<td>$t = 1.4141$</td>
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<td>$df = 556$</td>
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<td>standard error of difference = 1.510</td>
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<tr>
<td>Mean</td>
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<tr>
<td>SD</td>
</tr>
<tr>
<td>SEM</td>
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</table>

#### CLOTHING - Price

<table>
<thead>
<tr>
<th>Unpaired t test results:</th>
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</thead>
<tbody>
<tr>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.1119</td>
</tr>
<tr>
<td>By conventional criteria, this difference is considered to be not statistically significant</td>
</tr>
<tr>
<td>Confidence interval:</td>
</tr>
<tr>
<td>The mean of Group One minus Group Two equals -2.464</td>
</tr>
<tr>
<td>95% confidence interval of this difference: From -5.505 to 0.83</td>
</tr>
<tr>
<td>Intermediate values used in calculations:</td>
</tr>
<tr>
<td>$t = 1.5924$</td>
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<tr>
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<td>standard error of difference = 1.548</td>
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<tr>
<td>Mean</td>
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<tr>
<td>SD</td>
</tr>
<tr>
<td>SEM</td>
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#### CLOTHING - Quality

<table>
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<tr>
<td>P value and statistical significance:</td>
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<td>By conventional criteria, this difference is considered to be statistically significant</td>
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<tr>
<td>The mean of Group One minus Group Two equals 2.82</td>
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<td>standard error of difference = 1.159</td>
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<tr>
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<tr>
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</table>

#### CLOTHING - Brand

<table>
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<th>Unpaired t test results:</th>
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</thead>
<tbody>
<tr>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.2394</td>
</tr>
<tr>
<td>By conventional criteria, this difference is considered to be not statistically significant</td>
</tr>
<tr>
<td>Confidence interval:</td>
</tr>
<tr>
<td>The mean of Group One minus Group Two equals 1.097</td>
</tr>
<tr>
<td>95% confidence interval of this difference: From -0.783 to 2.926</td>
</tr>
<tr>
<td>Intermediate values used in calculations:</td>
</tr>
<tr>
<td>$t = 1.1772$</td>
</tr>
<tr>
<td>$df = 556$</td>
</tr>
<tr>
<td>standard error of difference = 0.931</td>
</tr>
<tr>
<td>Summary of data:</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>SD</td>
</tr>
<tr>
<td>SEM</td>
</tr>
<tr>
<td>N</td>
</tr>
</tbody>
</table>

---

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Appendix G: T-test results for gender differences – TEXTILES CONT.

<table>
<thead>
<tr>
<th>CLOTHING - Ethical Sourcing</th>
<th>CLOTHING - Organic Nature of clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpaired t test results:</td>
<td>Unpaired t test results:</td>
</tr>
<tr>
<td>P value and statistical significance:</td>
<td>P value and statistical significance:</td>
</tr>
<tr>
<td>The two-tailed P value equals 0.9533</td>
<td>The two-tailed P value equals 0.2941</td>
</tr>
<tr>
<td><strong>By conventional criteria, this difference is considered to be not statistically significant.</strong></td>
<td><strong>By conventional criteria, this difference is considered to be not statistically significant.</strong></td>
</tr>
</tbody>
</table>

| Confidence interval:        | Confidence interval: |
| The mean of Group One minus Group Two equals -0.051 | The mean of Group One minus Group Two equals 0.730 |
| 95% confidence interval of this difference: From -1.764 to 1.661 | 95% confidence interval of this difference: From -0.636 to 2.096 |

| Intermediate values used in calculations: | Intermediate values used in calculations: |
| t = 0.0586 | t = 1.0502 |
| df = 556 | df = 556 |
| standard error of difference = 0.872 | standard error of difference = 0.695 |

<p>| Summary of data:             | Summary of data: |</p>
<table>
<thead>
<tr>
<th>Group</th>
<th>Men</th>
<th>Women</th>
<th>Group</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>10.708</td>
<td>10.759</td>
<td>Mean</td>
<td>7.851</td>
<td>7.121</td>
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<tr>
<td>SD</td>
<td>7.026</td>
<td>7.113</td>
<td>SD</td>
<td>7.356</td>
<td>5.347</td>
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<tr>
<td>SEM</td>
<td>0.801</td>
<td>0.324</td>
<td>SEM</td>
<td>0.838</td>
<td>0.244</td>
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<tr>
<td>N</td>
<td>77</td>
<td>481</td>
<td>N</td>
<td>77</td>
<td>481</td>
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</tbody>
</table>

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