Gordon Institute of Business Science
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South African consumers' consciousness and concern about environmental and social issues in the local fashion industry when purchasing apparel

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Abstract

This research was inspired by an exceeding number of global calls for action to limit global warming and combat climate change. This research aimed to investigate South African consumers' overall consciousness of sustainable production and consumption practices, related concern for the environment, and their willingness to purchase sustainably produced clothing merchandise. The researcher was particularly interested in identifying market segments (income groups) that are conscious, concerned and willing to purchase, as they could be key to drive a call for more responsible purchase and consumption behaviour in the future.

The theoretical perspective that guided this research was Rational Choice Theory (RCT) that attended to consumers' conscious deliberation of product alternatives based on specific product information. RCT was an effective solution to guide the differentiation of consumer decisions across different income levels for this research.

A survey was carried out in a single electronic phase by distributing a structured, quantitative questionnaire. A total of 325 completed questionnaires were collected through non-probability sampling techniques and analysed thereafter.

The findings indicated that South African consumers are only moderately conscious and concerned about environmental practices, and specifically that they are less concerned about the future implications of their clothing consumption behaviour. These findings reveal a need for concerted effort to inform and educate consumers as many prominent retailers have already begun to do. This study could not indisputably confirm that consumers are discouraged from choosing sustainably produced merchandise over similar, more affordable items. A pertinent outcome of this research is that in South Africa, income level does not seem to influence consumers' consciousness and concern about the sustainability of clothing production practices, as well as their willingness to purchase sustainably produced clothing. The implication for retailers is that they can therefore strategise to incorporate more extensive ranges of sustainably produced clothing in their stores, knowing that consumers, irrespective of the income category, are not unwilling to pay for it.

Keywords

Fashion apparel, sustainability, consumer consciousness, consumer concern, consumer willingness to purchase

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

_____ _____

Zainub Moolla Date

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Chapter 1: Introduction and Research Problem

1.1 Introduction to the Research Problem

Climate change caused by global warming, which is further fuelled by human activities, is one of the most significant concerns of our time. It has already disrupted global economies, the lives and livelihoods of most people, and according to the United Nations, will persist into the future (United Nations, n.d.). This issue is not only an international issue. Locally, South Africa is ranked as one of the least environmentally friendly and non-sustainable countries in the world (Euromonitor International, 2019). This is due to, amongst others, the country's reliance on coal-produced energy and dependence on fossil fuels resulting in increased levels of air pollution.

The specific contribution of the textiles and fashion industry to climate change, as well as evidence of the environmental and social impact of this industry on this global dilemma, has drawn considerable attention in recent years, as indicated in documentaries such as *The Next Black* (Kohler & Dworsky, 2014), *The True Cost* (Ross & Morgan, 2015), *Alex James: Slowing Down Fast Fashion* (Akers, 2016) and *RiverBlue* (Williams & Mcllvride, 2017). According to the Organization for Economic Co-operation (OECD, 2019), the apparel and footwear industry accounts for an estimated 8% of the world's greenhouse gas emissions as a consequence of waste generation, water- and land pollution (Taljaard & Sonnenberg, 2019). Notwithstanding, recent trends such as fast fashion, and the copious consumption of fashion have boosted a further rise in apparel and footwear production due to more frequent shopping and disposal of clothing (Greenpeace International, 2017). To put matters into perspective, global clothing production has doubled over the last few years (Eder-Hansen, Chalmer, Tärneberg, Tochtermann, Seara, Boger & Jäger, 2017).

To curb the damage to the environment, as well as to create a better future for its people, sustainability movements, including those concerned with sustainable fashion, should be encouraged through both sustainable production and consumption (Taljaard, Sonnenberg & Jacobs, 2018). Promisingly, research has indicated that consumers can considerably guide environmental changes by engaging in more sustainable practices. However, the inherent success of any change eventually hingers on consumer

involvement. Hence, the knowledge of what drives consumers' decision making at the purchasing stage is of significant importance (Trudel, Argo & Meng, 2016). Over the years, research has identified important factors that can either incite or hinder sustainable consumption, such as knowledge, awareness, consciousness, concern, and willingness to act/purchase/pay for sustainably produced products (Bodur, Duval, & Grohman, 2015), given that these goods are generally more expensive than other, similar products (Taljaard & Sonnenberg, 2019; Retailmap, 2019). These factors served as inspiration for this research.

1.2 Research Problem

Concern about irresponsible and wasteful consumption of the world's natural resources has become a vibrant topic of discussion in recent times and has led to the clothing and textiles industries subsequently implementing changes to amend the reputation of the industry (Eder-Hansen et al., 2017; OECD, 2019). Although these actions are applauded, alternative practices in the clothing and textiles industry mostly have financial consequences that reflect in the retail price of clothing merchandise (Nilssen, Bick & Abratt, 2019; Retailmap, 2019, Taljaard & Sonnenberg, 2019). Unfortunately, sustainable consumption often comes at an additional cost to consumers. Usually, sustainably produced merchandise is less widely available and more expensive to produce due to factors such as the use of organic materials and non-toxic dyes (Muller, 2019; Retailmap, 2019; Taljaard & Sonnenberg, 2019), thus are generally more expensive than similar garments in a store. Eventually, despite honest sentiments about the environment and sustainable production of products, the cost relating to the consumption of sustainably produced goods may, unfortunately, outweigh the benefits.

Despite consumers' understanding of sustainability as a phenomenon, having the relevant consciousness of sustainable clothing production and consumption practices and concern for the environment, the relative affordability may eventually position sustainably produced apparel beyond what many consumers can afford during these trying economic times. Price may therefore exclude these products from consumers' frame of reference as many consumers are simply unable and unwilling to pay for it, even though they are conscious and concerned about the environmental matter. Thus, although consumers may be conscious of sustainable production and consumption

practices across industries in general, and may be concerned about the environment (Nielson, 2018), it is not clear if the higher selling price of products may eventually outweigh the factors that are considered during the purchase process, including consumers' understanding of the sustainable consumption predicament, and related concerns. Therefore, whether consumers are willing to purchase sustainably produced clothing products when faced with similar affordable options, is yet to be determined.

1.3 Research Purpose

This research focused on the South African context and provides valuable empirical evidence for clothing retailers concerning consumers' consciousness of sustainable production and consumption practices, their concern for such, and the viability to offer sustainably produced apparel in all stores notwithstanding the approximate income level of their target market. The purpose of this research was to furthermore differentiate consumers' consciousness, concern and willingness to purchase sustainably produced clothing merchandise in accordance with established income level categories that generally guide retailers' market segmentation practices (Langschmidt, 2017). This is to indicate possible significant differences that retailers should take notice of in terms of underlying reasons for their target markets' choices and behaviour in the marketplace. Lastly, the research investigated the relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern regarding their environment to determine if, when more conscious, consumers are more concerned about the environment.

1.4 The Need for the study

1.4.1 Business Need

Multiple studies have deduced that socioeconomic circumstances have a determining influence on consumers' ecological perceptions, attitudes, consciousness and concern and that a significant difference exists between income groups (Inglehart, 1993; Struwig, 2010; Sulemana, James & Valdivia, 2016; Dlamini, Tesfamichael, Shiferaw & Mokhele, 2020). It has also been reported that those with a higher household income were more knowledgeable of environmental topics and took these issues more seriously (Meyer, 2018). This research considered the influence of one's socioeconomic status on their

willingness to purchase sustainably produced clothing merchandise when faced with similar, more affordable options. For many South Africans, the price of sustainably produced merchandise might simply surpass what they are willing, and able to pay. Therefore, research was needed to identify important factors that consumers consider when making a purchase, and to investigate consumers' willingness to purchase sustainably produced clothing products. This was carried out to indicate whether the sustainability of products might lead to more support, and if higher prices might deter consumers' sustainable purchase and consumption practices.

Eventually, the availability of sustainably produced clothing products across all types of stores may be based on the assumptions that consumers' consciousness of sustainable clothing production and consumption practices, their concern regarding the environment, and their willingness to purchase sustainably produced goods, surpasses the relevance of products' selling price. A theoretical foundation of the reasons for consumers' clothing product preferences (i.e. how they prioritise selected product characteristics) and differences among income groups are very important to retailers. This information could prevent financial losses when certain product lines in their stores do not attract the attention and revenue that was anticipated.

1.4.2 Theoretical Contribution

This research extends evidence of South African consumers' consciousness of sustainable production and consumption practices and their concern for the environment, by presenting new research with regards to South Africans' willingness to purchase sustainably produced clothing. Furthermore, income level differences are investigated to resolve conflicting research with regards to the influence of socioeconomic statuses on consumers' behaviour and product choices. By using the rational perspective as a theoretical foundation, the controlling influence of price – an extrinsic product characteristic – was investigated as an indication of different market segments' prioritisation of product characteristics and their eventual willingness to purchase (pay for) sustainably produced clothing products. The rational perspective allowed for insights into consumers' consideration of tangible product characteristics notwithstanding their consciousness of a particular phenomenon (sustainability of

production practices) as well as their concern, which may increase their emotional attraction towards certain products in the store.

1.5 Research Questions

Four research questions were developed to address these factors. Following the literature review that is presented in Chapter 2, seven hypotheses related to these research questions were deduced. These were:

RQ 1: How conscious are South African consumers in general of sustainable clothing production and consumption practices?

The related hypotheses were:

Hypothesis 1.1: South African consumers are moderately conscious of sustainable clothing production and consumption practices.

Hypothesis 1.2: South African consumer's consumers' consciousness of sustainable clothing production and consumption practices differs significantly across different income segments that generally guide retailers' market segmentation.

RQ 2: How concerned are South African consumers in general about the environment and the planet's natural resources?

The related hypotheses were:

Hypothesis 2.1: South African consumers are moderately concerned about the environment and the planet's natural resources.

Hypothesis 2.2: South African consumers' concern about the environment and the planet's natural resources differs significantly across different income segments that generally guide retailers' market segmentation.

RQ 3: How does the price of sustainably produced clothing merchandise influence South African consumers' willingness to purchase when they are faced with similar affordable product alternatives?

The related hypotheses were:

Hypothesis 3.1: South African consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar affordable product alternatives

Hypotheses 3.2: The relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives.

RQ 4: What is the relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources?

The related hypothesis was:

Hypothesis 4: There is a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources.

1.6 Research Scope

The scope of the research was limited to consumers' consciousness of sustainable clothing production and consumption practices, their concern for the environment, and their willingness to purchase sustainably produced clothing, across different income groups. Rational Choice Theory (RCT) was the chosen theoretical perspective, thus the theoretical lens to structure the research and discussions. RTC focuses on consumers' rational consideration of product attributes during the purchase process (Green, 2002; Kroneberg & Kalter, 2012; Van Wyk, 2018). Researchers regard these considerations as a highly relevant perspective to investigate consumer decision-making, particularly those with economic implications (Scott, 2000).

1.7 Methodology

In this research, a positivistic approach was used to uncover causal relationships between empirical and numerical data. A survey was carried out in a single electronic

phase, by distributing a structured, quantitative questionnaire that comprised of carefully formulated questions, and easy-to-complete Likert-type scales that could be analysed numerically (Mackenzie & Knipe, 2006). A structured questionnaire was chosen as the most suitable measurement instrument to achieve the purpose of the research. This method of data collection allowed for the standardisation of the data and enhanced ease and correctness of the data analysis (Gillham, 2008). This also enabled the conduct of selected statistical procedures as envisaged in the research questions, and which guided the related hypotheses after completion of a thorough literature review (see Chapter 2). A deductive approach was utilised for this study, as this approach is concerned with the study of theoretical questions that are derived from existing theory. In this study, it related to important factors that can either incite or hinder sustainable consumption (Nilssen et al., 2019). A descripto-explanatory method was used, that relates the statistical outcomes of the study (see Chapter 5) to existing literature (Zikmund, Babin, Carr & Griffin, 2013).

The population of this study was all consumers who had regularly purchased clothing merchandise, i.e. those who had exercised product decisions in a retail store for themselves or on behalf of others during the preceding year. The population covered all geographical regions in South Africa. The questionnaire was communicated to 3000 individuals across all social media platforms utilising convenience sampling, and it eventually achieved a response rate of 10.8%, resulting in 325 viable responses.

This study was representative of the respondents' view at a particular point in time and was therefore cross-sectional in nature (Zikmund et al., 2013), which also took into account unavoidable time-constraints that the researcher had to adhere to, to conduct the research as part of an academic programme.

1.8 Measures to Eliminate Error

Pertinent measures were taken throughout the study to prevent error and to ensure ethical conduct. This included a revision of every stage of the research process and effort to ensure that the data gathering and the data analysis were performed in the most suitable way possible and that the results were presented and interpreted truthfully (Welman, 2005). To assure the theoretical validity of the study, a review of the most recent literature was conducted to identify and operationalise the key constructs and to ensure that the literature

on which the study is based was recent and relevant (Welman, 2005). Inferential validity was achieved by employing a positivist philosophy that ensured that specific and appropriate statistical procedures were performed on the data. In terms of criterion validity, all questions asked were relevant to the research questions and the hypotheses that are presented, while content validity was ensured by cross-checking the questionnaire and pre-testing it after ethical clearance, but before the final distribution of the questionnaire. Statistical analysis, such as exploratory factor analysis (EFA) was used for the scales in the questionnaire, to establish construct validity and ensure the validity of the findings. Lastly, statistical tests such as Cronbach's Alpha coefficient were administered where relevant, to assess internal consistency and to ensure the reliability of the findings.

1.9 Ethics

Ethical conduct during research is very important and has become a pertinent issue for academic institutions and publishers in recent times. The researcher, therefore, attended to every stage of the research process to ensure that the research report was a true reflection of her own work and that any sources consulted, were properly acknowledged. Furthermore, the researcher did not plagiarise any published or unpublished materials, did not submit work that was written fully or in part by someone else, and did not copy any parts of an article, textbook, reports, websites or her own previous assignments.

A theoretical perspective was important as part of ethical consideration as it was used to establish the perspective of the research and how the data would be interpreted and analysed (Walliman, 2011).

The questionnaire used to collect data was submitted for ethical clearance to the Master's Research Ethics Committee of GIBS for approval prior to the commencement of data collection. This was completed to protect the research participants and researchers from harm or exploitation, to preserve the rights of the participants, and to ensure academic integrity (Green Pages 2020 Modular and Part-Time Groups, 2020). The questionnaire was formulated with the South African consumer in mind, and measures were taken to ensure that questions were relevant, easy to comprehend and that the scales were easy to complete. In addition, respondents were required to submit

their consent before they were allowed to proceed with the completion of the questionnaire.

The researcher did not fabricate the data or its findings in any way. Appropriate methods, such as the use of a data disk and a memory stick was used to ensure that the data was safely stored in an accessible format for a minimum period of ten years. This was submitted online to the academic institution at the same time as the research report submission.

1.10 Structure of the Research Report

The structure of this study is set out in the following way:

Chapter 2 presents a review of the literature of various concepts, including climate change, the fashion industry, and the environmental and social impact of the textiles and fashion industry. Sustainability movements are defined and reviewed, and literature pertaining to factors that incite and hinder sustainable consumption is presented. Lastly, the theoretical perspective or lens that guided the focus of the study is presented.

Chapter 3 presents the research questions and related hypotheses drawn from the literature. A conceptual model is presented, which depicts the relationships explored in the research, clearly specifying the relevant constructs.

Chapter 4 consists of the research design and methodology chosen for the execution of this research. This indicates the research philosophy, methodological choices, the purpose of the research design as well as the strategy, time horizon, techniques and procedures that directed the study. The population of the study, the unit of analysis, sampling methods and sample size as well as data collection methods, and analysis approach are discussed. Lastly, measures to eliminate error, ethical conduct and limitations of the research are described.

Chapter 5 presents the results of the data, utilising the data analysis techniques highlighted in Chapter 4. The demographics of the sample are described, reliability and validity are established, and relevant statistical tests are conducted to answer the research questions.

Chapter 6 discusses the results of the previous chapter in relation to the literature review conducted in Chapter 2.

Chapter 7 offers the conclusion of the research, the principal findings, limitations of the study, and recommendations for future research.

Chapter 2: Literature Review

2.1 Introduction

This chapter is a review of past and current literature, exploring the concept of climate change, both in a global and South African context. The fashion industry is defined, and trends such as fast fashion and copious consumption are explored. In addition to this, the environmental and social impact of the textiles and fashion industry is investigated, to comprehend the impact that this industry has had on climate change and the environment. Furthermore, sustainability movements such as sustainable fashion, sustainable production and sustainable consumption are defined and reviewed, and literature pertaining to factors that incite and hinder sustainable consumption are presented. Lastly, Rational Choice Theory, which served as the theoretical perspective or lens that guided the focus of the study, is discussed in terms of consumers' decision-making process concerning their consideration to purchase sustainably produced apparel.

2.2 The Impact of Climate Change

First acknowledged in 1987 by the Brundtland Commission, and later on in 1992 by the Rio Earth Summit (Sonnenberg, 2014), climate change is regarded as one of the most significant concerns of this decade. According to the Intergovernmental Panel on Climate Change (IPCC), it is referred to as a change in the climate due to an interplay of "natural internal processes, or external forces… solar cycles, volcanic eruptions, and continual anthropogenic changes" in the atmosphere or in how land is appropriated (IPCC, 2018, p. 544. This definition varies somewhat to that of the United Nations Framework Convention on Climate Change (UNFCCC) classification, that clearly distinguishes between climate change caused by human actions and those caused by natural events (United Nations, 2011). Both definitions nevertheless proclaim that climate change has continued to dominate world news and has already negatively affected every country on every continent in the world.

During the last few decades, the unrelenting consequences of climate change have been blamed for resulting in the six warmest years on record, with 2019 documented as the second-hottest year in history. The year 2020 is expected to be among the ten

hottest years on record (Fountain & Popovich, 2020). Climate change has also affected other weather patterns and events. Evident is an increase in air pollution and rising of sea levels caused by the release of greenhouse gas emissions into the atmosphere (Hoegh-Guldberg, Jacob, Taylor, Bindi, Brown, Camilloni, Diedhiou, Djalante, Ebi, Engelbrecht, Guiot, Hijioka, Mehrotra, Payne, Seneviratne, Thomas, Warren & Zhou, 2018). The change in weather patterns is likely to intensify the extremity of weather-related events such as floods, droughts, fires, and storms (OECD, 2019), creating further potential for havoc on the ecosphere that will, among others, have a considerable impact on the earths poorest nations.

Over the last 20 years, global emissions have increased by 61%, and both Satgar (2018) and Muller (2019) have reported that the ramifications of climate change will mostly impact and be experienced on the African continent over the course of the next half a century, notwithstanding Africa's mere 4% contribution towards global emissions. The Johannesburg Declaration on Sustainable Development to this end, states that "the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating and developing countries more vulnerable" (United Nations, 2002, p. 5). It is believed that vulnerable communities are severely impacted as they heavily depend on natural resources that are now degrading very fast (Taljaard & Sonnenburg, 2019). It is also predicted that the impact of climate change will in particular, gravely affect Southern Africa (Thornton, Jones, Owiyo, Kruska, Herrero, Kristjanson, Notenbaert, Bekele & Omolo, 2006).

According to the 2019 Euromonitor International Report, South Africa is ranked as one of the least environmentally friendly and unsustainable countries in the world. Corresponding to the Environmental Sustainable Index (presented in Figure 2.1), which rates countries on several indicators that are fundamental to sustainable development, South Africa is ranked 85 out of 97 countries. This is largely due to its reliance on coal-produced energy and dependence on fossil fuels that cause increased levels of air pollution, and scarcity of water in certain areas despite susceptibility to floods in other areas (Euromonitor International, 2019).

2018 Rank	Overall	Energy	Water	Pollution	Environmental Resilience	Forest & Biodiversity	Food & Agriculture
Regional	20th	13th	14th	17th	18th	24th	2nd
Global	85th	70th	86th	82nd	70th	90th	28th

Source: Euromonitor International from the Environmental Sustainability Index
Note: The index ranks 97 countries globally and 25 countries regionally (Middle East and Africa). For any indicator, the best performance corresponds to 1st in the ranking, while the worst performance corresponds to 97th. For example, a country ranking 1st in water stress means it is the least water stressed, while a country ranking 1st in energy efficiency is the most energy efficient among the 97 countries.

Figure 2.1: Environmental Sustainability Index in South Africa (Source: Euromonitor International, 2019).

Therefore, climate change has already disrupted global economies, the lives and livelihoods of millions of people, and will persist into the future. Unavoidably, the consequences of climate change pose a pertinent threat to both the planet and human lives, especially the poorest and most vulnerable among us.

2.3 The Fashion Industry

The following section focuses on the fashion industry, which has drawn considerable attention amid concerns about its impact on the environment. The importance and structure of the global and South African fashion industry are discussed.

2.3.1 An Overview

The size of the global apparel industry in 2019, constituting womenswear, menswear, childrenswear, apparel accessories, footwear, and hosiery, was 1.9 trillion dollars in sales, with projections that it could rise to 2.1 trillion dollars by the year 2025. Sales are forecasted to further increase by 57% by the year 2030, equating to 3.3 billion dollars in annual sales (Greenpeace International, 2017; Statista, 2019). This unprecedented growth has led this industry to be the second-largest segment in the consumer goods sector globally, only exceeded by packaged food (Euromonitor International, 2020a). Interestingly, however, volume growth in this industry has been growing at a faster rate when compared to sales growth, indicating an industry that is powered by low prices and higher volumes. The United States and China both lead in market size and growth

in this industry, advanced by a growing middle class while capitalising on the surge of e-retailing, which has allowed these countries to exploit the growing demand for fashion apparel and footwear (Euromonitor International, 2017).

In South Africa, the size of the apparel and footwear industry in 2019 was R142.9 billion, achieving a 2% growth for the year, while forecasted to increase by a 6% compound annual growth rate, to reach R187.3 billion by the year 2024 (Euromonitor International, 2020b). The reason for the 2% local growth in comparison to the 5% global growth is due to the impact of South Africa's weak economic growth at the time. This hindered consumer spending on non-essentials, such as apparel and footwear. Also, the increase in VAT rates in 2018 led to increased selling prices. These factors have resulted in a reduced volume of sales and higher levels of unemployment (Euromonitor International, 2020b). Unfortunately, the devastating consequences of the COVID-19 pandemic on retail are not reflected in these statistics, and therefore actual projections may be lower, as would be the case for all other industries, locally and globally. Notwithstanding, the apparel and footwear industry still contributes approximately 13% to total retail sales in South Africa (Statistics South Africa, 2020a), and undoubtedly, is a significant contributor through trade and employment to both the global and local economy (Částek & Červáková, 2019; Euromonitor International, 2020b).

2.3.2 Fast Fashion

The concept of fast fashion, also referred to as the Quick Response Method, is a term used by fashion retailers to define the process of trends being "designed and manufactured quickly and cheaply to allow the mainstream consumer to take advantage of current clothing styles at a lower price" (Zhenxiang & Lijie, 2011, p. 195). This concept is also synonymous with throwaway fashion, which refers to clothing manufactured to be worn less than ten times by the user, before being disposed of (Baier, Rausch & Wagner, 2020; McAfee, Sjöman & Dessain, 2007). In a 2017 report published by Euromonitor International (2017), the five biggest megatrends to shape the global apparel and footwear industry were listed, and the emergence of fast fashion as a trend and the substantial impact that it would have on emerging markets was highlighted to be of great significance for the foreseeable future.

Most famously adapted by leading international retailer Zara, is the move to a ‘See Now, Buy Now’ model (Euromonitor International, 2017), whereby fast fashion has been declared an effective way to increase sales while thriving on fast cycles of production (Cachon & Swinney, 2011). These cycles involve “rapid prototyping, small batches combined with large variety, more efficient transportation and delivery, and merchandise that is presented floor-ready..” to stores upon delivery (Rahmiati, 2016, p. 39). Hereby, merchandise is provided to the consumer at a much faster rate than previous subjective buying models. At the same time, the constant replenishment of goods enables retailers to meet consumers’ demands at a more consistent pace, while tempting consumers with instant gratification (Částek & Červáková, 2019). This trend has also contributed to an increase in apparel and footwear production and consumption. According to Euromonitor International (2017), fast fashion consumers shop more often than other consumers. As an example, Zara’s consumer's shop approximately 17 times per year at their stores, versus the ‘normal’ four times a year reported in previous retail cycles. As a result, the average person purchases roughly 60% more items of clothing per year, although keeping them for approximately half as long when compared to 15 years ago (Greenpeace International, 2017).

Undeniably, the apparel and fashion industry contributes significantly to the growth of the global and South African economy through trade and job creation, assisting in a shrinking of the gap between the rich and the poor. However, by promoting the increased consumption of apparel and footwear, fast fashion has also magnified issues regarding the industry’s environmental and social impact (Magnuson, Bryce, Reimers & Chao, 2017).

2.3.3 The Environmental Impact of the Fashion Industry

The fashion industry and the repercussions of the fast fashion trend have led to the manifestation of environmental and social issues in the world, as the textiles and apparel industry has been named as one of the largest industrial polluters. It is said that this industry contributes to the corrosion of the environment through factors such as air and water pollution, the emission of greenhouse gases, and an increase in waste generation (Taljaard & Sonnenberg, 2019). Concerns have also been raised over social issues, specifically the working conditions and remuneration of employees in factories, as well

as general ethical conduct, including concern for animal welfare concerning the use of fur, hides, etc. (Choudhary & Islam, 2014; Částek & Červáková, 2019).

In terms of its environmental impact, the apparel and footwear industry is said to collectively account for approximately 8% of the global climate impact, equating to 3990 million metric tons of pollution (Quantis, 2018). The biggest contributors to climate change that are associated with the climate footprint of the industry include energy and water consumption, and dependence on fossil-fuel-based energy in the production process. Other concerns are the carbon emissions linked to the transportation and distribution of goods, deforestation for the conversion of natural and synthetic fibres, and waste generated from the disposal of used and unused surplus garments (Baier et al., 2020; Taljaard & Sonnenberg, 2019). Water pollution is a very important concern in South Africa, which generally suffers from low rainfall and drought conditions. The problem is that wastewater from the production process of the textile industry re-enters the local groundwater and can damage and break down the entire water network (Niinimäki, Peters, Dahlbo, Perry, Rissanen & Gwilt, 2020). The distribution of goods from manufacturers to consumers, and the pollution caused by transport, is surprisingly low and estimated at only 3% of the industry's total global climate impact (Quantis, 2018). This indicates that conventional marketing related strategies that suggest that locally produced goods are superior to offshore produced goods, based on its climate footprint, are indeed misleading.

With regards to waste, Greenpeace International (2017) has reported that people, on average, buy up to 60% more clothing items per year compared to 15 years ago. Also, approximately 95% of clothing that is disposed of is still re-usable, yet is still discarded along with basic household waste. Millions of tons of useable apparel and textile waste therefore end up in landfills or incinerators. In the UK alone, approximately 350 000 tons of textile waste was left to decompose in landfills and incinerators in 2017. Textile waste produces hazardous chemicals such as methane and toxic leaching, which generates further pollution through the release of greenhouse gases and harmful chemicals that also seep into the earth and pollutes water systems. The generation of textile waste is expected to escalate even further as the consumption of apparel increases. It is expected to increase by 63% by the year 2030, based on an increase in population and world economic growth (Greenpeace International, 2017).

The apparel industry further contributes to the deterioration of the environment due to its reliance on non-reliable fossil fuels used in the production of polyester, acrylic, acetate, spandex, and nylon (Muller, 2019). These textiles are reported to release non-degradable micro-plastic and microfiber particles, which further aggravates the pollution of land and water (Greenpeace International, 2017). However, according to a report by the Pulse of the Fashion Industry (Eder-Hansen et al., 2017), the amount of synthetic materials used in the production process, specifically polyester, is expected to increase by 92% by the year 2030, further contributing to the degradation of the environment. The apparel industry is hence, in many ways, a significant contributor to the corrosion of the environment and climate change. Unless urgent steps are taken soon, its expected impact on climate change may further increase by up to 49% by the year 2030 (Eder-Hansen et al., 2017).

2.3.4 The Social Impact of the Fashion Industry

In terms of its social impact, the fashion industry has a negative reputation for presenting poor working conditions to employees, and also being accused of using cheap child labour and 'sweatshops' in the manufacturing process to reduce labour costs (Karthik & Gopalakrishnan, 2014). Greenpeace International (2017) has reported that workers on the production side are often underpaid and subjected to risky and sometimes dangerous working conditions. Local communities are also affected in that dumping sites are often located near rural villages that make them subject to the effects of pollution in the area, and the diminishing of important resources such as fresh, clean water (Greenpeace International, 2017). In South Africa, approximately 90% of all apparel found in the local market is sourced, produced, and imported offshore from countries like China and Bangladesh that are unfortunately known for unfavourable working conditions. The cheaper imported clothing has also reduced the capacity for local manufacture in South Africa, and has subsequently led to job losses and even factory closures (Taljaard, Sonnenberg & Reis, 2018).

At the current rate of deterioration, South Africans in particular, are already vulnerable through their reliance on natural resources and limited livelihood choices among the poor. The adoption of more sustainable practices in the textile industry, in particular, is therefore a top priority. To halt the damage to the environment, and to create a better

future for its people, sustainable methods of consumption of clothing and textile products are recommended. This includes measures such as the reduction of the quantity of clothing that people consume, and embracing options such as recycling and the re-use of clothing, all in addition to an increased demand for sustainably produced fashion (Taljaard et al., 2018).

2.4 Sustainability Movements

The following section gives an overview of sustainability in terms of its meaning and relevance for the clothing industry.

2.4.1 The Dimensions of Sustainability

The concept ‘to sustain’ literally means ‘to ‘maintain’’ or ‘to uphold’ (Karthik & Gopalakrishnan, 2014). Due to its broad meaning, it can be interpreted in numerous ways. Literature generally associates sustainability with a contribution to economic, ecological, and social aspects (Hasbullah, Sulaiman & Mas’od, 2019; Nilssen et al., 2019). Concerning its association with economics, it implies fair and market-related pricing for both producers and consumers. Its ecological relevance refers to care for the environment, proper management of natural resources, and the promotion of the quality of life for both humans and animals. Lastly, social implications embrace recognition of, and empathy in terms of the basic needs of society (Nilssen et al., 2019). In terms of trade, sustainability refers to the application of principles and practices that are conducive to preserve the delicate balance of nature and to prevent the cause of irreparable destruction to the planets natural resources (Karthik & Gopalakrishnan, 2014).

Sustainable fashion, a concept which first emerged in the 1960s, when consumers became aware of the environmental and social impact of the textiles and clothing manufacturing industry, is often described as an oxymoron, as fashion implies that an item will become outdated, which contradicts the basic definition of sustainability (Henninger, Alevizou, & Oates, 2016). However, "slow fashion” that developed as a trend that is grounded in the values of sustainability, refers to efforts to enhance sustainable fashion as a crucial movement rather than a fad (Euromonitor International, 2018; Nielson, 2018). This movement emerged as a response to unsustainable business growth in the apparel and textile industry, in addition to a reaction to the fast fashion

trend. In contrast to fast fashion, the slow fashion movement promotes reduced and sustainable production, also referred to as eco-, green-, pro-environmental, or ethical-fashion, as well as the sustainable consumption of fashion goods. These terms will be used interchangeably for this research (Baier et al., 2020; Henninger et al., 2016).

2.4.2 Sustainable Production

The sustainable production of goods is a response by firms, both retailers and manufacturers, to the call for action by leading environmental organisations as well as concerned consumers to address the fashion industry's contribution to the erosion of the environment. The impact of unsustainable production practices can be described in terms of the typical life cycle of a cotton T-shirt. As cotton is vulnerable to insect attacks, approximately 10% of the world's synthetic pesticides are used in the cultivation of cotton. The toxicity of these pesticides not only contributes to the erosion of the environment but also to exposure to poisonous substances that may be very harmful to the health of farmers and workers (Gam, Cao, Farr & Kang, 2010). Secondly, approximately 132.5 litres of water is used to dye approximately 450 grams of material, while the transportation and distribution of this material from farms to retailers utilise huge volumes of fuel (Jung & Jin, 2014). The upkeep of this T-shirt is furthermore harmful to the environment as the washing process utilises even more water and chemicals during the cleaning process, releasing non-degradable microfiber particles that pollute land and water (Greenpeace International, 2017; Jung & Jin, 2014). Eventually, this T-shirt is discarded as household waste, ending up in landfills or incinerators where it will produce hazardous chemicals, which will generate even more pollution and seep into the earth, polluting water systems (Greenpeace International, 2017).

One of the ways to reduce the above mentioned harmful effects of the production process is to include materials that cause less harm to the environment into the production process (Gershoff & Frels, 2015) to satisfy certain social, environmental, and economic objectives. Other strategies that are employed to resolve environmental sustainability issues include the use of organic fabrics and advanced technologies as well as the reduction of energy and water used in production activities (Nilssen et al., 2019). One such example is the inclusion of organic cotton as a primary material. Organic cotton is one of the best known sustainable friendly materials that is used to

decrease the environmental impact of the production of cotton fibre for the apparel industry (Muller, 2019). This type of cotton is cultivated without the use of harmful and toxic synthetic pesticides, by rather using natural fertilisers. Once picked, the storage method of certified organic cotton also excludes the use of rodenticides and fungicides. Less water is used in the dyeing process, as natural dyes are used, followed by the use of natural-based soaps. Despite the introduction of organic cotton to the market in the 1980s, conventional cotton still accounts for the bulk of the world's cotton production, primarily because organic cotton is more expensive to produce (Muller, 2019).

However, the use of sustainable fabrics in the production process is only one of the means of reducing the climate footprint of the apparel industry. The rapid consumption of goods and subsequent disposal of it is equally harmful to the environment. Therefore, the production of textiles and clothing, as well as consumption levels, are jointly important in attaining a healthy environment (Jung & Jin, 2014).

2.4.3 Sustainable Consumption

2.4.3.1 Understanding sustainable consumption

The ecological and socially conscious consumer is a term introduced in seminal work in the 1970s by Anderson and Cunninghams (1972), and Webster (1975). It denotes a consumer who acknowledges the public consequences of private consumption or attempts to enhance social change through his or her purchasing power. Ongoing studies by Roberts and Bacon (1997) have expanded this definition to include both ecological and social consequences, which affect consumers' purchasing behaviours. The authors note that consumers' interest and consciousness of sustainable clothing production and consumption practices can adapt their reception and attitude towards sustainable fashion to influence their purchasing behaviour. Bodur et al. (2015) included in the definition, the adoption of consumption practices that would encourage the socially responsible conduct of organisations. Částek and Červáková (2019) furthermore expanded the definition of sustainable consumption behaviour as the purchase of environmentally-friendly products and concern of business procedures and policies that include social issues regarding the human rights of factory workers, fair pay for employees, and concern for animal welfare. Částek's et al. (2019) definition took a more holistic view of what sustainable consumption entails and was used for this research.

Over the last decade, the sustainable consumption movement has progressed and the 'greenness' of products, ethical nature of production, and the overall impact of products on the environment have become increasingly more important to consumers (Gershoff & Frels, 2015). Over the years, research has identified important factors that can either incite or hinder sustainable consumption, such as knowledge, awareness, consciousness, concern, and willingness to act/purchase/pay for sustainable products (Bodur et al., 2015). These factors served as inspiration for this research.

In a Greendex worldwide survey conducted in 2012 (Greendex, 2012), 56% out of 17 000 respondents labelled themselves as "one who avoids environmentally harmful products, minimises waste, tries to save energy, and chooses environmentally friendly products as often as possible" (2012, p. 65). The same survey (Greendex, 2012) also found that 68% of respondents across 18 countries (including South Africa) were concerned about the issue, while 85% intended on adopting lifestyle changes to 'be more environmentally conscious'. In a subsequent survey published by the INGKA group presented at the World Economic Forum in 2018 (INGKA, 2018), a recorded 66% of respondents claimed to be concerned about climate change, and 87% were willing to take action. Finally, the number of concerned participants increased by 5% to 71% in the INGKA 2019 study. However, the number of respondents willing to take action remained at 87% (INGKA, 2019).

Notwithstanding, Kollmuss and Agymen (2002), and more recently, Kozar and Connell (2017), determined that certain barriers to sustainable consumption still prevail. They distinguish those barriers as internal and external in kind, depending on their impact and influence on pro-environmental behaviour. The following section explores both internal and external barriers to sustainable consumption.

2.4.3.2 Barriers to sustainable consumption

Internal barriers reflect a modest difference between men and women (Brough, Wilkie, Issac & Gal, 2016), but most importantly, include consumer knowledge, consciousness, awareness, and concern. The 2019 INGKA study across 30 countries and 31 000 respondents suggests a strong correlation between consciousness and concern and the willingness to act, arguing that more conscious people are inclined to be more concerned and are more likely to take action (Brodin, 2020). Formative literature on the

topic of attitudes towards the environment states that individuals who are more mindful of environmental issues will be more concerned about them, as they are more aware of the potential damage (Danielson, Hoban, Van Houtven & Whitehead, 1995). Accordingly, recent literature within the context of consumer behaviour indicates that consumers, once made aware of the detrimental effects of non-sustainable production and consumption, are willing to consume less and to consume more sustainably to reduce the impact of their behaviour on the environment, and subsequently, their contribution towards climate change (Laroche, Bergeron & Barbaro-Forleo, 2011: White, Habib & Hardisty, 2019; Winterich, Nenkov & Gonzales, 2019; van der Wal, van Horen & Grinstein, 2017).

External barriers refer to factors that the consumer mostly has limited control over, and include marketing related factors, such as pricing, quality, and the availability of sustainably produced merchandise. In terms of quality, Tezer and Bodur (2020) determined that sustainably produced goods are perceived to be of poorer quality, which decreases consumers' purchase intentions. Paradoxically, however, sustainably produced clothing is more costly to purchase in comparison to fast fashion goods or conventional goods (Bhaskaran, Polonsky & Fernandez, 2006; Black & Cherrier, 2010; Forbes, Cohen, Cullen, Wratten, & Fountain, 2009). This is often due to reasons such as the use of organically produced cotton fibre and the use of non-toxic dyes during the production process that may jeopardise the affordability of sustainably produced clothing and footwear beyond what most consumers can afford (Muller, 2019).

Research suggests that the guaranteed path to a sustainable future is to incite consumers' consciousness of sustainable clothing production and consumption practices to encourage more thoughtful purchase behaviour. However, Brosdahl (2007) determined that consciousness on its own is insufficient to alter consumers' behaviour, but that concern was also essential. However, notwithstanding positive attitudes and intentions, actual adoption and consumer motivation to purchase sustainably produced merchandise are closely linked to their willingness to purchase/pay. While the promotion of sustainable consumption is well-meant, sustainably produced merchandise is generally more expensive than similar products in a store, and are often too expensive for many, even though consumers understand the implications of their purchase (Bodur et al., 2015; Taljaard, Sonnenberg & Jacobs, 2016; Retailmap, 2019).

The following section details consumers' behaviour concerning sustainable consumption, and further examines both internal and external barriers to consumption, focusing on consciousness, concern, and the willingness to purchase sustainably produced products.

2.5 The Relevance of Consumers' Consciousness

Seminal work by Kohlberg (1984) reveals that most adults have a common wish to behave in a decent manner, and to think and act by certain behaviours that are deemed to be both ethical and principled. Within a consumer context, a realisation of ethical conduct occurs through exposure to ethical product attributes that touch consumers' conscience in some way (Reczek, Irwin, Zane & Ehrich, 2018, p. 187). Environmental consciousness in this context, which is also referred to as environmental awareness, broadly encompasses an attitude concerning the environmental consequences related to people's behaviour (Ham, Mrcela & Horvat, 2016, p. 160). It includes the presence of objective and subjective knowledge of sustainable clothing production and consumption practices (Tilikidou, Adamson & Sarmaniotis, 2002). Consciousness is therefore measured in terms of knowledge, attitudes, perceptions, and behaviours (Philippsen, Angeoletto & Santana 2017). Environmental consciousness, also defined as the inclination to respond to environmental issues in a particular way, is most often regarded as the first step to becoming an ecological and socially conscious consumer (Roberts & Bacon, 1997).

According to Částek and Červáková (2019), sustainable consumption refers to when a consumer, during the decision-making process, is conscious of the entire consumption decision and not only attends to personal interest, but also considers the best interest of the environment, society, and community. Brosdahl's (2007) and Dickson's (2000) research into the factors that incite sustainable consumption in the textiles and clothing industry attended to the relationship between consumers' consciousness of sustainable clothing production and consumption practices on their intent to purchase. Dickson (2000) determined that while consumers' general understanding concerning industry practices was low, consumers who were more conscious about industry practices displayed stronger support for sustainably produced apparel. However, empirical evidence suggests that consumers often avoid considering or even thinking about

ethical information, and choose to ignore such information when making purchasing decisions (Paharia, Vohs & Deshpande, 2013). When this type of information is explicitly supplied to them at the decision stage, so that the consumer becomes conscious of the implications of their choice, they are more inclined to use this information to make a better choice (Reczek et al., 2018).

In the South African context, Muller's (2019) research into the marketing campaigns of various retailers in the country established that consumers' consciousness of sustainable clothing production and consumption practices is fostered and cultivated through constant and direct edification consumer's. This not only encourages sustainable consumption in the moment but can influence consumption behaviours indefinitely. A related local example is the Woolworths Better Cotton Initiative. Hereby, the retailer not only supports farmers in growing natural organic cotton, but they are committed to inciting consumers' consciousness through specific marketing campaigns and in-store signage that indicate to consumers that by purchasing items that carry the BCI labels, they are contributing to a better environment (Muller, 2019). Campaigns of this nature are used to improve consumers' consciousness of sustainable clothing production and consumption practices and to provide them with the opportunity to alter their purchasing behaviour and to support these initiatives (Muller, 2019).

In terms of actual awareness and consciousness of sustainable clothing production and consumption practices and the effects on climate change, South Africans are reported to possess high levels of knowledge and higher levels of consciousness, and most South Africans, regardless of their socio-economic status, seem conscious of the effects of climate change (Neville, 2010). On the contrary, Meyer's findings from a review of the 2013 South African Social Attitudes Survey revealed that over 70% of South Africans professed to have "little to no knowledge about environmental problems" (Meyer, 2018, p. 82). In her own study undertaken in Stellenbosch, Meyer (2018) found that more than 50% of her sample was extremely knowledgeable concerning various environmental topics, while only 2% of the sample's knowledge was low. Specifically, concerning knowledge related to global warming and climate change, 89% of the sample answered the questions correctly. However, knowledge about the environment and consciousness of sustainable clothing production and consumption practices were moderated by household income. It was concluded that respondents with a higher household income

were more knowledgeable of environmental topics, and took these issues more seriously (Meyer, 2018). The evaluation by Dlamini et al. (2020) of socio-demographic factors that have a determining influence on consumers' environmental perceptions and attitudes, support the findings that socioeconomic factors have an impact on consumers' consciousness. They conceded that "dwelling type, migration status, employment status, and education level were the strongest predictors of consumers' environmental attitudes" (2020, p. 12), while age and gender did not predict environmental perceptions and attitudes. Unfortunately, income levels that are important in terms of retailers' segmentation of consumers, and the affordability of sustainably produced merchandise were not explored in their study.

2.6 The Relevance of Consumers' Environmental Concern

Minton and Rose (1997) described environmental concern as a strong view on environmental problems such as resource quality, availability, and accessibility that includes an individual's environmental attitude and conduct (Schultz, Gouveia, Cameron, Tankha, Schmuck & Franěk, 2005; Struwig, 2010). Initial research into the topic of individuals' concern about the environment by Inglehart (1995) indicated that even though concern for the environment was already a growing topic at the time, the importance devoted to it was directly influenced by one's social standing and linked to Maslow's theory on the hierarchy of needs (1987). The theory states that it is only when a person's basic needs are met, are they then able to shift their attention to the next higher-levels needs. Implicit in Inglehart's (1995) argument was that concern for the environment was linked to socioeconomic factors such as income levels.

However, a different perspective was presented later by a Gallup Institute survey that involved 24 countries. This study could not find a relationship between consumers' concern about the environment and income levels, education level, or age (Dunlap, Gallup, & Gallup, 1993). Following this, a Canadian study conducted a few years later also determined that concern about environmental issues was not explicitly connected to one's social status, which implies income level and level of education. Instead, all residents of a country, from all income groups, educated or not, were concerned about environmental issues (Blake, Guppy, & Urmetzer, 1997). Schultz and Zelezny (1999, p. 258) later confirmed these findings in their cross-cultural study and declared that former

views that environmental concern is exclusive to the wealthy are unfounded. Multiple studies conducted over the years (Holl, Daily, & Ehrlich, 1995; Jacobs, 2002; White & Hunter, 2005) have, however, still failed to reach consensus about the relationship between environmental concern and an individual's social status, proposing that the state of the environment that respondents find themselves in, is a differentiating factor, and therefore, findings are context-specific (Brechin, 1999; White & Hunter, 2005).

Locally, conclusions also differ. Findings are drawn from the 2005 South African Social Attitudes Survey by Struwig (2010) (see Figure 2.2) which indicates that, according to the environmental concern index, lower-income groups were less concerned about the environment, while higher income groups scored higher on the index. He linked his findings to Inglehart's (1995) concern and the hierarchy of needs theory.

	R0–R500	R501–R1 000	R1 001–R2 000	R2 001–R5 000	R5 001+	P value	Eta Squared	Total
Concern index	3.06	3.04	3.13	3.26	3.49	0.00	0.045	3.11
Base N	861	343	106	137	102			1 549

Figure 2.2: Concern for the environment, by income (Source: South African Social Attitudes Survey, 2005).

However, the 2007 South African survey by Anderson, Romani, Phillips, Wetzel, and Tlabela (2007) could not find any significant statistical difference between individuals from different socioeconomic backgrounds, and different educational levels concerning their level of environmental concern. These findings confirm the Gallop Institute Survey (Dunlap et al., 1993) as well as Blake et al.'s (1997) Canadian survey and reject the view that environmental concern is linked to one's social status. However, alarmingly so, the findings also revealed that only 10% of South Africans were concerned about environmental issues, and generally did not consider it to be important. In fact, 49.3% of South Africans thought that 'too much fuss' was made about the environment (Anderson et al., 2007). Later studies by Hunter, Strife, and Twine (2010), conducted across 21 villages and 240 households located in the north-east of South Africa, confirmed the studies of Brechin (1995) and White and Hunter (2005), that environmental concern was situation-specific based on the difference of the severity of environmental issues across the various villages. Thereby, people who are directly affected by environmental issues

were more inclined to regard it as an issue (Anderson et al. 2007, 157). Overall, people in these villages were very concerned about the environment (Hunter et al., 2010).

More recent studies investigated the impact of individuals' socioeconomic standing and environmental concern, and reported that upper-middle and upper-income grouped across both developed and African countries were significantly more concerned about environmental issues (Sulemana et al., 2016). Upper-income groups were also more willing to choose the welfare "environment over economic growth and jobs, give part of their income to protect the environment, as well as being more willing to pay higher taxes to prevent environmental pollution" (Sulemana et al., 2016, p. 92). These findings are consistent with Inglehart's (1995) theory.

Contradicting findings across these studies have consequently raised doubt regarding the relationship between income levels, environmental consciousness, and environmental concern. Additional research into the topic in the South African context is therefore required to produce up-to-date findings. Although the drivers related to the decision-making process concerning sustainable consumption have been studied and reported extensively in the literature, an understanding of Rational Choice Theory related to these factors at the consumption stage is limited. In this context, it is disputable whether increased consciousness and concern translate into actual purchases, given the prevailing socioeconomic climate in South Africa, which includes high levels of unemployment and extreme poverty (Death, 2014), especially following the consequences of the COVID-19 pandemic. As a result, for many South Africans, the price of environmentally and socially friendly produced merchandise might surpass what they can afford, and what they are willing and able to pay. Therefore, research is needed to provide evidence of consumers' willingness to purchase sustainably produced clothing merchandise and to provide evidence of the merit of existing initiatives to provide larger supplies of sustainably produced clothing in retail stores.

2.7 Consumers' Willingness to Purchase

Research regarding consumers' purchasing decisions indisputably indicates that there is a misalignment between consumers' intention to purchase and what they eventually purchase, and that the rational choice of goods is a key influence in the decision-making process that determines what consumers eventually purchase (Carrington, Neville, &

Whitwell, 2014; Ottman, Stafford & Hartman, 2006). Schamp, Heitman, and Katzenstein (2019) reported that consumers are only willing to switch from conventional products to sustainably produced goods if products' prices and quality are comparable.

It has furthermore been found that not only is sustainably produced apparel more expensive than regular clothing, it is also not as widely available, and it is also associated with inferior quality (Han, Seo, & Ko, 2017; Magnuson et al., 2017; Tezer & Bodur, 2020). Therefore, consumers who are keen to support and engage in sustainability initiatives would probably have to pay a higher price for goods and would have to spend more time to search and be willing to pay more for travel costs to find the merchandise. The culmination of these extra costs could eventually cause the failure of sustainable apparel (Ottman et al., 2006; Han et al., 2017) – particularly in stores that target consumers in the middle and lower socioeconomic groups.

Nevertheless, several research reports (Částek & Červáková, 2019; Ha-Brookshire & Norum, 2011; Khare & Sadachar, 2017; Nielson, 2018; Tezer & Bodur, 2020) claim that overall, consumers are more willing to purchase sustainable products. The study of Částek and Červáková (2019) conducted in the Czech Republic, reports that 89% of the respondents in their sample would be willing to pay more for sustainably produced clothing. The study of Ha-Brookshire and Norum (2011), conducted in America, found that more than 50% of the respondents were willing to pay more for sustainably produced apparel, and in Nielson's *'Unpacking the Sustainability Landscape Report'* (2018), 55% of respondents from 60 different countries stated that they were willing to purchase products that were environmentally friendly and cruelty-free. Tezer and Bodur's (2020) experiment that involved 80 students in Canada, and revealed that after using both conventional and sustainably produced products, 41% of students were more willing to purchase the sustainably produced items. However, most of the studies cautioned that respondents might not have necessarily responded honestly to the questions, and the possibility exists that respondents might have replied what they had thought would be desirable to the researcher. Batson, Thompson, Seuferling, Whitney, and Strongman (1999) describe this phenomenon as "moral hypocrisy".

Notwithstanding these results, income is proposed to be the determining factor in differentiating consumers' choices, as they are not made in isolation (Olson, McFerran,

Morales & Dahl, 2016). Based on the numerous studies that have concluded a significant difference in socioeconomic groups' level of environmental consciousness and concern, one might also consider the influence of socioeconomic status on willingness to purchase sustainably produced clothing, in which case financially deprived consumers would need to part with scare monetary resources (an immediate loss) in order to care for the environment (a future gain that they might not even live to experience). Given that the unemployment rate in South Africa is presently 30.1% (Statistics South Africa, 2020b), while many face financial and economic hardship in dealing with the impact of COVID-19 on the economy, it is important to investigate South African consumers' willingness to purchase sustainably produced clothing.

2.8 Product Characteristics

At the purchase stage, consumers generally consider various characteristics of the product and base their purchase decisions on their perception of the importance of each particular characteristic (Baier et al., 2020). The product features that consumers generally consider include extrinsic factors such as price, visible quality cues and colour as well as intrinsic factors such as fit, comfort, and fashionability. Consumers mostly rank the criteria in terms of importance to them, to select, choose and purchase products. In terms of the external barriers related to sustainable consumption, the actual price of a product (an external, extrinsic cue) is considered one of the most significant hindrances to sustainable consumption (Baier et al., 2020). In essence, sustainably produced apparel and footwear provide the same functional and practical benefits compared to similar merchandise. Unfortunately, however, processes related to the manufacture of sustainably produced clothing merchandise, such as the use of organic materials, circular business models, and processes related to the upcycling of materials normally cost more (Baier et al., 2020; Muller, 2019; Taljaard & Sonnenberg, 2019). In determining consumer consciousness, concern and willingness to purchase, it would also be useful to investigate which product characteristics consumers' rank as highly important during their purchase decisions, and to what extent income influences these decisions.

2.9 The Theoretical Perspective: Rational Choice Theory

The following section presents the theoretical perspective that guided the structure and interpretation of this research, namely Rational Choice Theory (RCT). This theory is regarded by scholars as a conventional approach that was initially developed to investigate consumer decision-making in terms of consumers' income.

2.9.1 Basic Principles of RCT

RCT, which is commonly referred to as rational decision-making, assumes that all human actions are inherently 'rational' in character and that people contemplate the likely pros and cons of every action before they decide what to do. The RCT perspective has been used in various fields over time, and researchers regard this perspective as highly relevant to investigate consumer decision-making, particularly those with economic implications (Scott, 2000).

RCT entails two elements. Firstly, it is proposed that consumers consciously take into account product characteristics and former experiences, whilst gathering additional information about the purchase. Secondly, they consider all possible outcomes, during which the pros and cons are considered to choose an outcome that is informed by their income levels (Jackson, 2005). According to RCT, a consumer would therefore evaluate product alternatives in the store in terms of a range of product characteristics, including evidence of sustainable production and price, after which a decision is made following what they value most.

Hereby, RCT proposes that consumers' choices are rationally contemplated, analysed, and are indeed informed decisions in that consumers comprehend the outcome of their decisions (Kroneberg & Kalter, 2012).

2.9.2 Assumptions of RCT

RCT is based on various assumptions with regards to decision-making, namely that a decision problem needs to be solved, taking into account certain constraints, including all options and possible outcomes that are known to the decision-maker. This assumption of "completeness" refers to the fact that consumers have access to all the necessary information required to make an informed decision, and that "for any pair of choice alternatives, the individual will have clear preferences between the two or be

completely indifferent about the two alternatives" (Van Wyk, 2018. p. 53). This indicates that information necessary for decision-making will be accessible and that consumers will demonstrate clear preferences for product alternatives, although the information that consumers need to make a rational choice might differ. Key characteristics under consideration when choosing clothing, inter alia, include garment/product fit and fashionability, fabric composition, quality and durability, printed label information concerning the brand, care for the environment, and human dignity in the manufacturing process, price, and country of origin. Some of these characteristics are intrinsic, and others extrinsic in nature. When this assumption of "completeness" is met, preferences can be ranked as no choice is equal to another. Conclusions can then be transferred to other alternatives (Green, 2002). The following sections detail these assumptions concerning this study.

Constraints that can influence a consumer's decision may include the quality of the product (for example doubt about the quality), its price (it could be too expensive), and availability (it might imply additional search costs) (Coleman & Fararo, 1992; Van Wyk, 2018). Tezer and Bodur (2020) determined that sustainably produced goods are often associated with poor quality, even though sustainably produced clothing is generally more expensive compared to similar fast fashion- or conventional goods, and are less widely available (Bhaskaran et al., 2006; Black & Cherrier, 2010; Forbes et al., 2009). Consumers would, therefore need to consider these constraints when opting for sustainably produced clothing merchandise (Novemsky, Dhar, Schwarz & Simonson, 2007).

According to RCT, a decision-maker is aware of all options and the associated outcomes in a specific product category at the purchasing stage (Green, 2002), for example, price, quality, fit, and fashionability. A purchase decision is then made based on a consumer's decision of the relative importance of these characteristics (Baier et al., 2020). RCT assumes that consumers will be presented with options to choose from, and the various characteristics that are regarded as important in the selection phase will be available to ensure that informed decisions can be made (Green, 2002).

The ability to rank product characteristics suggests that no choice is equal to another (Coleman & Fararo, 1992). This is influenced by a consumer's consciousness of

products, former experiences, the possible outcomes, as well as all other information about the purchase as influenced by income level (Jackson, 2005). A consumer would then choose an option following what is valued most. This could be sustainably produced product, but it could also be any other criterion such as affordability or fashionability.

Transferability indicates that individuals have different inclinations when making product choices based on their contemplation of the likely costs and benefits of every action (Coleman & Fararo, 1992). As an example, if affordability is deemed to be the most important characteristic for a consumer when deciding to purchase clothing merchandise, this preference will not differ, irrespective of other available options.

However, RCT is not without limitations. One of the critiques raised is the assumption that individuals are always rational and that decisions are always calculated based on complete information, and that preferences are clear (Green, 2002). This theory is nevertheless easy to interpret and apply and can produce "many testable, observable and/or novel predictions of human/consumer behaviour compared to other methodologies/theories" (Van Wyk, 2018, p. 56). RCT seemed a logical solution to guide differentiation of consumer decisions across different income levels in this research that aimed to investigate and describe consumers' choices of apparel and footwear for the sake of appropriate market segmentation in the retail sector.

2.10 Conclusion

To curb ongoing damage to the environment, as well as to create a better future for all people, sustainability movements – including those concerned with sustainable fashion – should be supported through both sustainable production and consumption of products such as clothing (Taljaard et al., 2018). However, to encourage or promote responsible clothing consumption practices, consumers have to possess the relevant consciousness of sustainable consumption and production practices and concern for the environment. Also, consumers should demonstrate a willingness to purchase sustainably produced goods even though they are generally more expensive compared to similar merchandise in the stores (Retailmap, 2019; Taljaard & Sonnenberg, 2019). Inevitably, the price may be a deterrent that negatively affects consumers' decision-making when the relative cost of the consumption of sustainably produced merchandise outweighs the associated

benefits in consumers' minds. The problem is that the benefits associated with sustainable produced clothing merchandise may be less tangible at a particular point in time than the money that is paid to acquire such products.

RCT is ideally suited as a theoretical lens for an investigation of consumers' purchase decisions across different income levels during trying economic times, as it assumes that people can make rational decisions despite more emotional issues. According to RCT, informed purchase decisions are made in terms of available income. Therefore a conscious contemplation of product characteristics will occur, and willingness to purchase sustainably produced clothing merchandise will be based on those characteristics that outweigh the rest in terms of the value that a consumer expects to derive from the merchandise. Whether the primary driver of the decision will be sustainability within the bigger frame of environmental consciousness is yet to be decided in this study.

Chapter 3: Research Questions and Hypothesis

3.1 Introduction

The purpose of this research was to investigate South African consumers' consciousness of sustainable production and consumption practices, related concern for the environment, and their willingness to purchase sustainably produced clothing merchandise. This was also investigated across different income levels per established income level categories that generally guide retailers' market segmentation practices (Langschmidt, 2017). The researcher was particularly interested in identifying market segments (income categories) that are conscious, concerned and willing to purchase, as they could be key to drive a call for more responsible purchase and consumption behaviour in the future. Of further importance was to determine the relationship between consumers' consciousness and concern, and how the price of sustainably produced clothing merchandise, that is generally higher than similar merchandise that is displayed alongside in retail stores (Baier et al., 2020; Retailmap, 2019; Taljaard & Sonnenberg, 2019), influence consumers' willingness to purchase these products.

Essentially, evidence of consumers' consciousness, concern, and willingness to purchase sustainably produced clothing merchandise will be invaluable to retailers as it would indicate how their target markets prioritise their product choices. Therefore, are product choices rationalised in terms of affordability and price, or in terms of consciousness and concern for the environment? From a business perspective, this research focused on the South African adult market. It indicated to retailers which market segments to target to promote sustainably produced clothing merchandise, also indicating the viability to offer sustainably produced clothing merchandise that is generally more expensive, in all their stores.

The scope of the research was limited to consumers' consciousness of sustainable clothing production and consumption practices, their concern for the environment, and their willingness to purchase sustainably produced clothing. RCT that focuses on a rational consideration of product attributes during the purchase process (Green, 2002; Kroneberg & Kalter, 2012; Van Wyk, 2018) served as the theoretical perspective to guide the study. Researchers regard RCT as highly relevant to use when investigating consumer decision-making, particularly those with economic implications, which is the

case in retailers' market segmentation (Scott, 2000). Four research questions were developed to address the research problem. These guided the literature review, as presented in Chapter 2. Seven hypotheses related to these research questions were deduced.

3.2 Research Questions and Hypotheses

The following section presents the research questions and related hypotheses that are based on existing literature.

RQ 1: How conscious are South African consumers in general of sustainable clothing production and consumption practices?

The related hypotheses are:

Hypothesis 1.1: South African consumers are moderately conscious of sustainable clothing production and consumption practices.

Hypothesis 1.2: South African consumers' consciousness of sustainable clothing production and consumption practices differs significantly across different income segments that generally guide retailers' market segmentation.

According to Částek and Červáková (2019), sustainable consumption transpires when a consumer, during the decision-making process, is conscious of sustainable clothing production and consumption practices and is mindful of the consequences of consumption decisions. This decision-making process not only takes into account a consumer's interest but also considers the best interest of the environment, society, and community. Both Dickson (2000) and Brosdahl (2007) determined that consumers who were more conscious of sustainable industry practices displayed more substantial support for sustainably produced apparel and demonstrated purchase intention. In terms of actual awareness and consciousness of production and consumption practices and its impact on the environment, South Africans were reported to have the highest levels of knowledge and consciousness on the African continent, and that most South Africans, regardless of socioeconomic status, were aware of its effects (Neville, 2010).

However, more recent studies indicated that consciousness and knowledge about industry practices on the environment and observed the seriousness of the issues were

influenced by household income. Meyer (2018) concluded that respondents with a higher household income were more knowledgeable of environmental effects and took these issues more seriously. Furthermore, the latest studies by Dlamini et al. (2020), evaluating socio-demographic factors that have a determining influence on environmental perception and attitudes (consciousness), support these findings. These hypotheses are informed by the latest findings that South Africans are generally conscious of sustainable consumption and production practices and that socioeconomic factors, especially that of income levels, influence South African consumer's consciousness of sustainable clothing production and consumption practices.

RQ 2: How concerned are South African consumers in general about the environment and the planet's natural resources?

The related hypotheses are:

Hypothesis 2.1: South African consumers are moderately concerned about the environment and the planet's natural resources.

Hypothesis 2.2: South African consumers' concern about the environment and the planet's natural resources differs significantly across different income segments that generally guide retailers' market segmentation.

Environmental concern is characterised as encouraging a strong positive position concerning environmental problems such as quality, availability, and accessibility of natural resources, and a particular stance that is taken also influences an individual's environmental attitude and environmental behaviour (Schultz et al., 2005; Struwig, 2010). Global findings indicate that South African consumers, in general, are concerned about environmental issues (Greendex, 2012; INGKA, 2018; INGKA, 2019). Local studies provide two different streams of findings that relate to environmental concern, some which indicate that South Africans are concerned about the issue (Hunter et al., 2010) and some which found that South African are not (Anderson et al., 2007; Struwig, 2010).

Initial research into the topic of individuals' concern about the environment by Inglehart (1995) indicated that the importance placed on concern by an individual was directly

related to one's social standing. This was linked to Maslow's theory of the hierarchy of needs (1987). Implicit in Inglehart's (1995) argument was that concern for the environment was linked to socioeconomic factors such as income level and level of education. However, other perspectives have indicated that concern about the environment is not linked to an individual's income level, nor education or age (Blake et al., 1997; Dunlap et al., 1993, Schultz & Zelezny, 1999). In the local context, some studies report that there are no significant statistical differences in consumers' concerns across different socioeconomic backgrounds, nor are there notable differences based on social status (Anderson et al., 2007; Hunter et al., 2010). However, more recent studies (Struwig, 2010; Sulemana et al., 2016) have indicated that, according to an environmental concern index, lower-income groups were significantly less concerned compared to higher-income groups about the environment, supporting Inglehart's (1995) findings.

There are two streams of findings that relate to environmental concern. These hypotheses are informed by more recent studies. It takes the position that South Africans are generally concerned about the environment and the planet's natural resources and that socioeconomic factors, especially that of income levels, influence consumers' concern for the environment and planets natural resources.

RQ 3: How does the price of sustainably produced clothing merchandise influence South African consumers' willingness to purchase when they are faced with similar affordable product alternatives?

The related hypotheses are:

Hypothesis 3.1: South African consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar affordable product alternatives.

Hypotheses 3.2: The relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives.

Sustainably produced apparel and footwear provide similar, or the same functional and practical benefits in comparison to other merchandise. Unfortunately, most processes related to the manufacture of sustainable clothing merchandise, such as the use of organic materials, typically cost more (Muller, 2019; Retailmap, 2019; Taljaard & Sonnenberg, 2019). Laroche et al. (2001) argued that consumer attitudes (directed by consumers' consciousness and concern) towards the environment are good predictors of their willingness to purchase sustainably produced goods. At the same time, however, research concerning consumers' purchasing decisions indisputably indicate that price is a key influence in the decision-making process that determines what consumers are eventually willing to buy (Carrington et al., 2014; Ottman et al., 2006; Schamp et al., 2019). Taking into account these findings, the role of income is proposed to be the leading factor in differentiating consumers' choices, as consumption choices often do not exist in isolation (Olson et al., 2016). However, there is limited evidence to support this view, especially with regards to the influence of the price of sustainably produced clothing merchandise and different income segments' willingness to purchase such merchandise when they are faced with similar product alternatives. Based on the multiple studies that suggest a correlation between one's socioeconomic circumstances that include income, and their level of consciousness and concern for the environment, it was deemed worthwhile from retailers' point of view, to investigate different income levels' willingness to purchase sustainably produced clothing, as consumers would need to part with scare monetary resources to care for the environment.

RQ 4: What is the relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources?

Hypothesis 4: There is a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources.

According to Brosdahl (2007), the consciousness of sustainable clothing production and consumption practices on its own is insufficient to alter consumers' behaviour, and concern for the environment and the planet's natural resources is required. Furthermore, Brodin (2020) suggested a strong correlation between consumer consciousness and

concern, arguing that the more conscious people are of industry practices, the more inclined they are to be concerned about the environment (2020). There is no evidence to prove a relationship yet. However, based on Brosdahl's (2007) and Brodin's (2020) statement, the researcher proposed a possible positive relationship.

3.3 Conclusion

Based on the above, a conceptual model (see Figure 3.1 below) was compiled to indicate the relationships explored in this research, clearly specifying the relevant constructs. The model presents the view that South Africans are moderately conscious of sustainable clothing production and consumption practices and moderately concerned about the environment and the planet's natural resources, which will inevitably transpire in sustainable consumption. The model also presents that consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar affordable product alternatives, which will thus hinder sustainable consumption. Consumer income groups are presented as an influencing factor in South Africans consciousness, concern and willingness to purchase sustainably produced clothing merchandise. Lastly, a possible positive relationship between consumer consciousness and concern is presented.

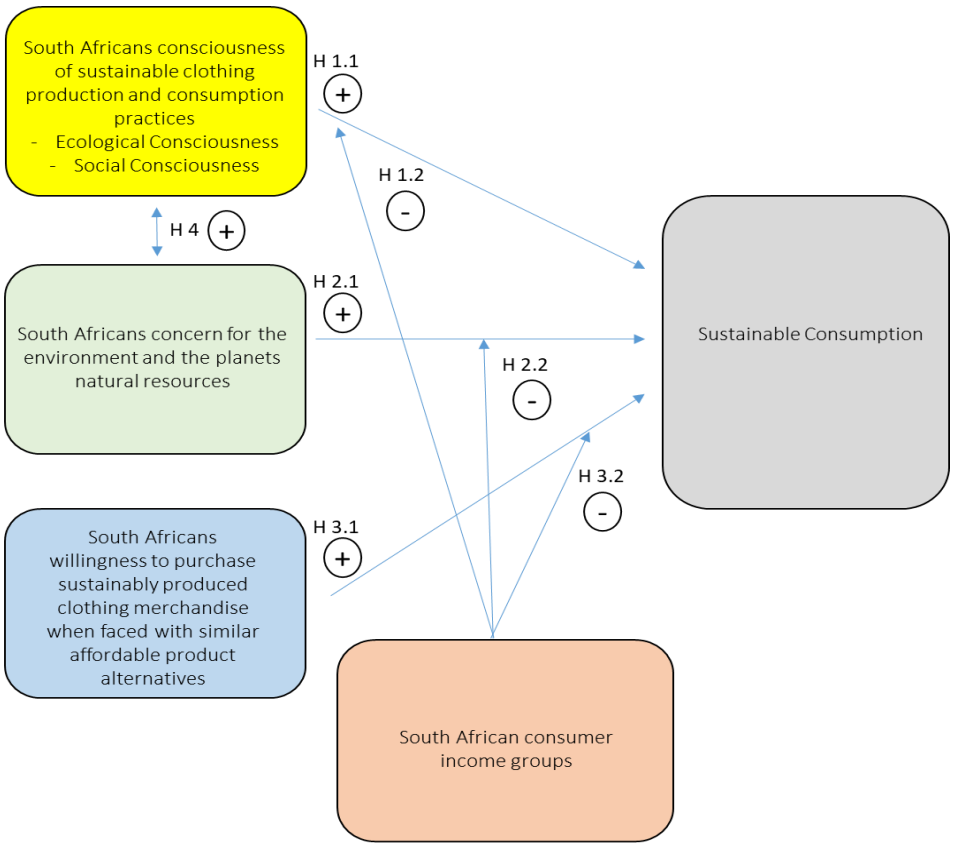

Figure 3.1: Hypothesised conceptual model (Researcher's own).

Chapter 4: Research Design and Methodology

4.1 Introduction

The following sections present a rationale for the research design and the chosen methodology to address the research questions and to test the hypotheses. Justification is provided for the population, unit of analysis, sampling method and size, data gathering and data analysis approach. Lastly, measures to eliminate error are indicated to ensure the validity and reliability of the research. Ethical considerations are discussed, and limitations of the research are acknowledged.

4.2 Research Philosophy and Design

This research employed a positivist philosophy, which related to the philosophical stance taken for the research (Saunders & Lewis, 2018, p. 107). According to Myers (2019, p. 28), the research philosophy affects how a researcher conducts the research, conceptualises and considers literature, as well as how data is collected. In this research, a positivistic approach was used to uncover causal relationships among empirical and numerical data, using easy-to-complete Likert-type scales (Mackenzie & Knipe, 2006). This approach enabled the conduct of selected statistical procedures as envisaged in the research questions and presented in the related hypotheses. The approach further entailed an exploration of consumers' consciousness of sustainable clothing production and consumption practices, their concern for the environment, their willingness to purchase sustainably produced clothing merchandise, and differences in consumers' income levels, which is vital for retailers' target markets.

The theoretical perspective for the research was RCT that attended to consumers' conscious deliberation of product alternatives based on specific product information per income level (Kroneberg & Kalter, 2012). A positivistic philosophy implies the use of explicit and relevant statistical procedures to analyse data after the appropriate data collection procedures were completed (Saunders, Lewis & Thornhill, 2016, p. 104). Data collection methods aimed at collecting information that was impartial, objective and unbiased, to ensure the validity of the research (Creswell & Creswell, 2017).

A deductive approach was chosen for this study, as this approach is concerned with the study of theoretical questions that are derived from existing theory, which in this case related to consumers' clothing preferences based on product characteristics, also exploring underlying motivation for sustainable consumption (Nilssen et al., 2019). Specific research strategies were designed to test hypotheses that were developed from literature to address the research questions (Creswell & Creswell, 2017).

This study was representative of the respondents' view at a particular point in time and was therefore cross-sectional in nature (Zikmund et al., 2013), which also took into account unavoidable time-constraints that the researcher had to adhere to, to conduct the research as part of an academic programme.

A descripto-explanatory method was used, that relates the statistical outcomes to literature (Zikmund et al., 2013). The study was also quantitative in nature, as the researcher collected numerical data. The research used a mono-method, electronic survey for data collection (Zikmund et al., 2013). The results were generated that statistically represented the views and behaviour of the chosen population for the study, which was time- and cost-effective, acknowledging the researcher's time and financial constraints. The research was also conducted at the time of the impact of the global COVID-19 pandemic, which presented challenges. It was expected that consumers who were already burdened with additional responsibilities during these trying times might not necessarily be interested in completing a survey that they would not directly benefit from.

Access to suitable respondents was gained through appropriate sampling techniques (further explained in section 4.5) using an electronic questionnaire, taking into consideration that it was not possible to recruit willing respondents face-to-face due to the health implications of COVID-19 and the enforced lockdown period (Saunders & Lewis, 2018, p. 121). The researcher designed a questionnaire for self-completion online. Respondents were informed about the purpose and nature of the study and were provided with a consent statement indicating that their names would not be disclosed, that they would complete the questionnaires anonymously, and that that they were able to withdraw at any time without any negative consequences. Participation was, therefore, voluntary.

The questionnaire comprised of a set of standard questions and was divided into specific sections, as explained in section 4.6.

4.3 Population

In research, a population is termed as a group of participants that the research targets and those individuals, groups or businesses that possess common characteristics of interest to the research (Polit & Beck, 2010). This research targeted all consumers who had regularly purchased clothing merchandise, i.e. those who had exercised product decisions in stores for themselves or on behalf of others during the preceding year. The envisaged population covered all geographical regions in South Africa. The study was interested in the choices of consumers from all income levels, aiming to intentionally also include lower-income consumers who might have been discouraged by the higher prices of sustainably produced clothing, particularly in the current trying economic times. By recruiting all willing adult consumers, nobody could feel offended as nobody was intentionally excluded from participation if they met the pre-requisites concerning age and frequency of clothing purchases.

4.4 Unit of Analysis

The unit of analysis was individual consumers who had previously purchased clothing merchandise in South Africa on a reasonably regular basis. Respondents had to be at least 18 years of age. In this study, respondents were expected to have purchased at least one clothing or footwear item during the preceding year. Because of the COVID-19 pandemic, only one purchase was stipulated because stores were closed for several months in the first semester of 2020, the period during which data was collected.

4.5 Sampling Method and Size

A sample is a sub-group of the researcher's selected population. As the collection of data from the entire population was not possible due to time and cost constraints, a sample of the entire population was recruited (Saunders & Lewis, 2018, p. 138). Non-probability sampling techniques were used for the recruitment of respondents, as a complete list of the population was unavailable. Also, respondents that were included

were required to meet specific selection criteria, namely the legal age of consent (18 years), employment status, and purchase history (Saunders & Lewis, 2018, p. 140).

Quota sampling was done, which ensured that specific characteristics of the population such as monthly household income was adequately represented in the sample and to ensure that the data set would be sufficient for the required statistical techniques that were envisaged (Etikan, Musa & Alkassim, 2016).

A sample size of 500 respondents was envisaged based on the sample sizes of completed research in the field of sustainability (Young, Hwang, McDonald & Oates, 2010), anticipating a minimum response rate of at least 50%. The questionnaire was communicated to 3000 individuals across all social media platforms, and it eventually achieved a response rate of 10.8%, resulting in 325 viable responses within three weeks. Convenience sampling was employed to reach respondents, as the measurement instrument was communicated across various social media platforms such as Facebook, WhatsApp, Telegram and Instagram in the latter half of September 2020 to the researcher's own network, requesting voluntary participation.

4.6 Measurement Instrument

A structured questionnaire was chosen as the most suitable measurement instrument to achieve the purpose of the research (see Appendix A: Questionnaire). It refers to a method of data collection wherein the same set of questions are presented to all the respondents, to be completed in the same way (Gillham, 2008).

The structure of the questionnaire took the following format:

- An introductory screen presented the purpose of the study as well as a consent statement for ethical purposes indicating that continuation with the questionnaire confirmed consent to incorporate the individual's responses as part of the data. Screening questions were added to ensure that respondents were over the age of 18 and that they had made at least one clothing purchase in the last twelve months.
- **Section A** comprised of product choices with regards to the willingness to purchase sustainably produced clothing and was tested by utilising Likert-type scale anchors below visual images of clothing items. Respondents were shown a series of examples of sustainably produced products and more affordable products with

visible labels that inter alia, indicated price as a key characteristic. These images were placed in pairs, side by side on the questionnaire, and respondents were asked to indicate their preference to purchase both items on the five-point Likert-type scale. An indication of preference of both images was asked based on RCT and the assumption of completeness, which refers to the fact that consumers should have all the necessary information in order to make a choice, and that "for any pair of choice alternatives, the individual will have clear preferences between the two or be completely indifferent about the two alternatives" (Van Wyk, 2018, p. 53). The scale anchors that were employed were very likely (5), likely, neutral, unlikely and very unlikely (1).

- **Section B** investigated the importance of product characteristics. Respondents were provided with eight characteristics of a garment that they had to rank in terms of the level of importance on a five-point Likert-type scale. The *Importance* scale was anchored from: very important (5), to not at all important (1).
- **Section C** comprised of statements relating to consumers' ecological and social consciousness of sustainable clothing production and consumption practices. The scale was adapted from Roberts and Bacon's (1997) ecologically conscious consumer behaviour and socially conscious consumer behaviour scale, utilising five increment Likert-type measurements. The scale anchors ranged from strongly agree (5), to strongly disagree (1).
- **Section D** consisted of statements relating to consumers' concern for the environment and the planet's natural resources. The scale was adapted from the Dunlap, Van Liere, Mertig, and Jones (2000) revised NEP scale (New Environmental Paradigm), presenting five increment Likert-type scales ranging from strongly agree (5), to strongly disagree (1).
- **Section E,** in conclusion, presented selected demographic questions, namely gender, age and monthly household income in categorical format, to be analysed descriptively (Pallant, 2007, p. 7). Only selected demographic questions that might be of interest for market segmentation were asked. This section was presented last so that the respondent would not be discouraged by questions pertaining to income level. The monthly household income categories were based on SEM scales, that

speak to how South Africans live and not what they have, in comparison to the previously used Living Standard Measures (Langschmidt, 2017).

4.7 Data Gathering Process

Data collection was done by the researcher, electronically, using an online tool, namely Google Forms, which was ideal during the COVID-19 pandemic when face-to-face access was impossible. The researcher recruited willing participants from her own network by communicating the questionnaire across various social media platforms which included Facebook, WhatsApp, Telegram and Instagram, requesting voluntary participation. Respondents were allowed to complete the questionnaire at their own pace and were able to submit their responses online.

4.8 Data Editing and Coding

The raw data from Google Forms was imported onto a Microsoft Excel spreadsheet and was edited, cleaned and coded by the researcher with the assistance of a codebook (see Appendix B). Data editing was undertaken prior to data coding to assess completion and compliance with the requirements of the study based on screening questions. Of the 341 entries, 16 entries were discarded due to incompleteness, resulting in a final sample size of N = 325. In terms of coding:

- Screening questions were collected using nominal data, and all Yes answers were coded as 1, and No answers as 2.
- Section A: Product Choices, Section B: Product Characteristics, Section: C: Consciousness and Section D: Concern were collected using interval data (on a five-point Likert-type scale).
- For Section A: Product Choices, the likelihood and willingness to purchase, 1 = Very unlikely, 2 = Somewhat unlikely, 3 = Neutral, 4 = Somewhat likely and 5 = Very likely.
- For Section B: Product Characteristics, rating the level of importance for each statement, 1 = Not at all important, 2 = Low importance, 3 = Neutral, 4 = Important, 5 = Very important.
- For Section: C: Consciousness and Section D: Environmental Concern, the extent to which respondents agreed with each of the statements, 1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree.

- Lastly, Section E: Demographics of the sample was collected using categorical variables:
    - For Gender, 1 = Male, 2 = Female and 3 = Prefer not to disclose
    - For Age, 1 = 18-29, 2 = 30-39, 3 = 40-49, 4 = 50-59 and 5 = 60 or older.
    - For Monthly Net Household Income, 1 = Up to R4999, 2 = R5000-R9999, 3 = R10 000-R19 999, 4 = R20 000-R39 999, 5 = R40 000-R49 999, 6 = R50 000-R59 999 and 7 = R60 000 +.
    - Monthly Net Household Income was later recoded (reconfigured income). Five income categories that made sense in terms of South African income statistics resulted and they were roughly equal in size. The new groups were: 1 = Low income (Up to R4999 and R5000-R9999), 2 = Low-middle income (R10 000-R19 999), 3 = High-middle income (R20 000-R39 999), 4 = Lower-high income (R40 000-R49 999 and R50 000-R59 999) and 5 = Upper-high income (R60 000).

4.9 Data Analysis

Data analysis was completed under the guidance of a qualified statistician, who was also involved in the approval of the final questionnaire before it was launched to ensure that the type of questions matched the envisaged data analysis. Descriptive analyses were performed as a first step to present a profile of the respondents as well as to calculate simple frequencies that could be used to describe consumers' responses (Pallant, 2007, p. 7). Demographic characteristics, namely gender and monthly household income level, were used to group the sample descriptively for inferential statistical procedures in accordance with the objectives of the study. Statistical analysis included inter alia exploratory factor analysis (EFA) to finalise the dimensions of selected scales (Section A: Product Choices; Section C: Environmental and Social Consciousness and Section D: Environmental Concern). Specifically, principal axis factoring (PAF) was used as an extraction method. PAF does not make any distributional assumptions and is more commonly used for Likert-type scale data which is not normally distributed. The assumptions of EFA include:

1. The sample size is large enough, preferably 150 and over, in order to yield reliable valuations of correlations among the items. A minimum ratio of 5:1

should be present for each variable. The ratio of cases to variables *N I K* (cases/items) in this study is 16:1 for Product Choices, 23:1 for Ecological and Social Consciousness and 54:1 for Environmental Concern.

2. No significant outliers were present.
3. The sample was linearly related.
4. Correlations amongst variables existed in order for the identification of coherent factors. The correlation matrix should display correlations of r = 0.3 or higher, while the Kaiser Meyer-Olkin Measure of Sampling Adequacy value should be greater or equal to 0.6. The Bartlett's test for Sphericity should be statistically significant when p is equal to or less than 0.05.

Following the EFA of each scale, reliability of the constructs was measured using the scale's internal consistency. Cronbach's Alpha is the most common indicator used to measure a scale's internal consistency and was deemed to be valid if the Cronbach's Alpha coefficient was above 0.7. ANOVA tests were conducted thereafter on the first three hypotheses. Assumptions of an ANOVA include:

1. One dependent variable is measured on a continuous scale.
2. There is independence of observations.
3. No significant outliers are present in groups in terms of the dependent variable.
4. The dependent variable is normally distributed for each group of the independent variable.
5. There is homogeneity of variances.

Once the assumptions were tested, and normality and homogeneity of variances were found, one-way ANOVA tests were conducted to compare for differences between reconfigured income groups (certain income categories that were presented in the questionnaire were combined to represent low-, middle- and high-income categories). Lastly, a multiple regression equation was used for the seventh hypothesis aimed at testing the relationship between respondents' consciousness of sustainable clothing production and consumption practices, and their concern for the environment.

The researcher enlisted the services of a statistician to administer these tests in order to ensure the accuracy and validity of the results, based on the researcher's lack of experience in running statistical tests. However, the services of the statistician were limited to the administration of the tests and excluded any and all analysis of the study's findings.

4.10 Measures for Quality and Correctness

Pertinent measures were taken throughout the study to prevent error and to ensure ethical conduct. This included a consistency matrix to ensure that the different components of the research were aligned (see Appendix C). A revision of every stage of the research process was conducted, and effort was taken to guarantee that the data gathering and the data analysis were performed in the most suitable way possible and that the results were presented and interpreted truthfully (Welman, 2005).

4.10.1 Validity

In order to assure the theoretical validity of the study, a review of the most recent literature was conducted to identify and operationalise the key constructs and to ensure that the literature in which the study was based was recent and relevant (Welman, 2005). The scope of the research was limited to South African consumers, particularly their consciousness of sustainable clothing production and consumption practices and concern about the environment, as well as their willingness to purchase sustainably produced clothing that is mostly more expensive than similar merchandise in retail stores. RCT (see Chapter 2) provided the theoretical lens for analytical procedures and discussion of the findings.

Inferential validity was achieved by employing a positivist philosophy that ensured that specific and appropriate statistical procedures were performed on the data. Data was gathered using data collection methods, which aimed to collect impartial, objective and unbiased information from respondents who met the minimum criteria for participation, and who were willing to share honest thoughts (Saunders & Lewis, 2018, p. 107). The researcher made an effort to recruit sizable subsets of respondents based on income criteria to enable income comparisons. The researcher included all regular consumers of clothing in South Africa, across all income categories, only limiting the age of respondents to 18 years or older. A sample size of 500 respondents was envisaged based on the sample sizes of completed research in the field of sustainability (Young et

al., 2010), anticipating a response rate of at least 50%. The sample size was chosen to ensure that sufficient responses were collected and that there was an adequate representation of all income categories to allow for statistical comparisons that could produce valid findings. The researcher collected 325 viable responses. Furthermore, the analysis of the tests was administered with the assistance of a qualified statistician which ensured the validity of the results (MacKenzie, 2003). She recommended specific analytical procedures to achieve the envisaged outcomes of the study.

In terms of criterion validity, all questions asked were relevant to the research questions and the hypotheses, as presented in Chapter 3. All questions included in the questionnaire were relevant in terms of the data analysis. Respondents completed the questionnaires on their own and were not influenced during the completion of the questionnaires in any way (Saunders & Lewis, 2018, p. 140).

Content validity was ensured by cross-checking the questionnaire and pre-testing it with ten respondents after ethical clearance but prior to the final distribution of the questionnaire. This provided an indication of the time required for completion, and to ensure clarity of instructions and questions. This was useful to ensure that the questionnaire was easy to comrehend, that respondents would be able to answer all the questions easily, and that all the questions were relevant to the study. Problems that arose, such as clarity of instruction and addition of an extra question later on, were discussed with the supervisor and amendments were made after discussion with the statistician (Leedy & Ormrod, 2014; Salkind, 2013). The questionnaire was then re-submitted for ethical clearance and was approved shortly thereafter.

Statistical analysis such as EFA was used for Sections A, B and C of the questionnaire, to establish construct validity and ensure the validity of the findings.

4.10.2 Reliability

A structured questionnaire was chosen as the most suitable measurement instrument to achieve the purpose of the research. This method of data collection, wherein the same set of questions that were formulated to answer the research questions, were presented to all respondents. This allowed for the standardisation of the data and enhanced ease and correctness of the data analysis (Gillham, 2008).

In order to moderate for random or unstable error, that refers to uncertainty about respondents' mood state while completing the questionnaire (Salkind, 2013), the questionnaire was kept as short, specific and straightforward as possible to facilitate accurate responses and to prevent misinterpretation. Respondents were informed upfront of an approximate time needed for completion of the survey, that their identities would not be disclosed, and that they were able to withdraw at anytime without any negative consequences if they wished to do so while completing the questionnaire.

Statistical tests such as Cronbach's Alpha coefficient were administered where relevant, to assess internal consistency and ensure the reliability of the findings. For this purpose, a reliability coefficient of 0.7 was considered the norm for reliability (Pallant, 2007, p. 95).

4.11 Ethics

Ethical conduct during research is fundamental and has become a pertinent issue for academic institutions and publishers in recent times. The researcher, therefore, attended to every stage of the research process to ensure that the research report was a true reflection of her own work and that any sources consulted were acknowledged correctly. The following serves as an explanation of how the researcher attended to this matter:

Plagiarism: The researcher did not plagiarise any published or unpublished materials, did not submit work that was written entirely or in part by someone else and did not copy any parts of an article, textbook, reports, websites or her own previous assignments. Every source used to structure and guide the research was acknowledged correctly in the relevant text, and a complete reference list was attached to the research report.

Theoretical perspective: A theoretical perspective was important as part of ethical consideration as it was used to establish the perspective of the research and how the data would be interpreted and analysed. The theoretical perspective that supported this study was RCT, which proposed a rational consideration of product attributes during the purchase process, and is widely used to explain human behaviour (Kroneberg & Kalter, 2012).

Ethics approval: The questionnaire used to collect data was submitted for ethical clearance to the Master's Research Ethics Committee of GIBS for approval prior to the commencement of data collection (see Appendix D). This was completed in order to protect the respondents and researchers from harm or exploitation, to preserve the rights of the respondents and to ensure academic integrity (Green Pages 2020 Modular and Part-Time Groups, 2020).

Protection from harm: In terms of the population of the study, the primary aim was to only focus on lower-middle-income consumers. This was deemed to be unfeasible and unethical based on the fact that the researcher would be required to disclose the aims and purposes of the research, and would need to ask explicit questions regarding respondents' monthly household income to meet this purpose. This would have caused embarrassment, and therefore the researcher modified the population to rather target consumers of clothing in South Africa across all income categories to avoid harm and to ensure openness of intent.

Voluntary participation and consent: Respondents were required to submit their consent before they were allowed to proceed with the completion of the questionnaire. Confidentiality and anonymity were promised to respondents in the introductory screen to the questionnaire and ensured that questions were answered honestly. Respondents were nevertheless assured that they were able to withdraw at any time, without any negative consequences.

Deception of respondents: The questionnaire was formulated with the South African consumer in mind, and measures were taken to ensure that questions were relevant, easy to comprehend and that the scales were easy to complete.

Data and interpretation: The researcher did not fabricate the data or its findings in any way. Data collection continued for three weeks, and nobody was forced to complete a questionnaire. The researcher enlisted the services of a statistician to administer relevant statistical tests, which ensured the accuracy and validity of the results, based on the researcher's lack of experience. However, the services of the statistician were limited to the administration of the tests and excluded any and all analysis of the study's findings. Appropriate methods, such as the use of a data disk and a memory stick, were used to ensure that the data was safely stored in an accessible format for a minimum

period of ten years and was submitted online to the academic institution at the same time as the research submission.

Competence of the researcher: The research was performed at a Masters level as a student project and relied on the support of a supervisor and the assistance of a qualified statistician to conduct the research process competently and ethically within the limited time period. This document was also language edited by a professional editor before final submission.

4.12 Limitations

The following limitations should be noted:

- Non-probability sampling is regarded by Saunders and Lewis (2018, p. 141) as a sub-standard representation of the population, but time and financial constraints left the researcher with no alternative. The researcher, therefore, tried to recruit a larger sample to counteract the issue.
- The researcher was a novice in drafting questionnaires and analysing data using statistical tools. As such, she had to rely on the assistance and guidance of her supervisor and a statistician so as not to jeopardise the quality of the study.
- Accessing respondents from the lowest income groups proved to be difficult, due to language barriers and accessibility of respondents as they might not be have been able to access the questionnaires electronically and might not have been able to complete the survey independently. Therefore, the researcher only included respondents that had access to electronic devices and were able to complete the survey independently.
- As the study was cross-sectional in nature, it only provided a snapshot at a point in time, which is essential to mention during the COVID-19 pandemic when the economic pressure of the current situation was enforced on the majority of the population and may have increased their price sensitivity more than what it would have had under other circumstances.

Chapter 5: Results

5.1 Introduction

This chapter presents the results of the study in accordance with the objectives of the research, and the relevant hypotheses that were formulated in accordance with existing literature. The chapter begins with a description of the profile of the sample, followed by the validity and reliability analyses. The results are presented in the order of the seven hypotheses, as presented in Chapter 3. ANOVA outcomes for income differences that are of importance for retailers are presented, and a multiple regression was used to test for a relationship between factors. Analyses were conducted at a significance level of 95% based on best practice.

5.2 Descriptive Profile of the Sample Population

A total of 325 (N = 325) completed questionnaires were collected for a period of three weeks from 23 September to 14 October 2020, after ethical clearance. All respondents confirmed that they were over the age of 18 and had made at least one clothing purchase in the preceding twelve months.

5.2.1 Gender

The gender composition of the sample is presented in Figure 5.1. The male:female distribution in the sample (N = 325) was approximately 1:3, and only 1.2% of the sample preferred not to disclose their gender. The sample was skewed more towards females, which did not pose a problem as this study was particularly interested in possible income differences that are of concern to retailers in terms of their market segmentation.

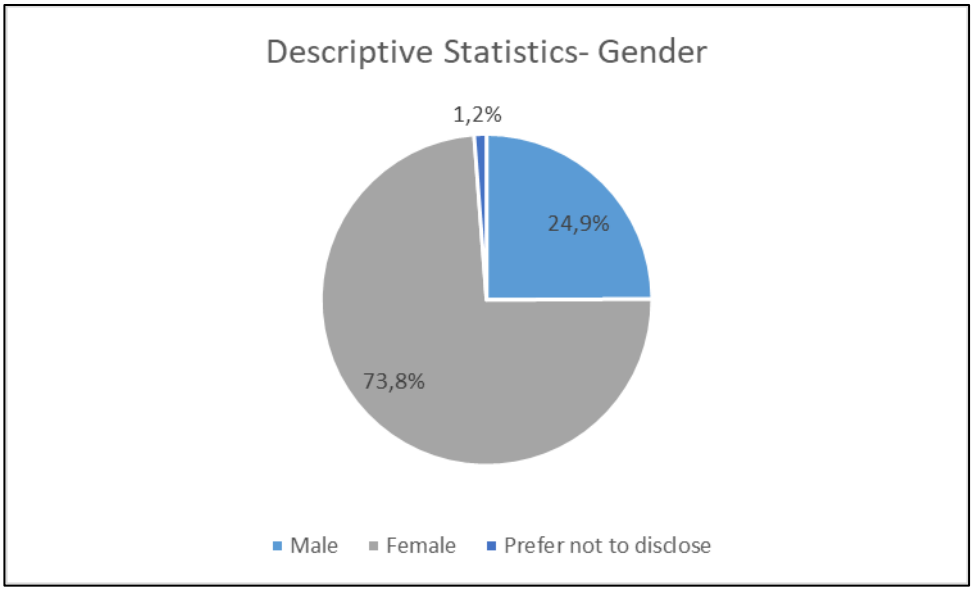

Figure 5.1: Descriptive statistics for gender (Source: SPSS output).

5.2.2 Age

The age composition of the sample is presented in Table 5.1. There was an unbalanced representation of age groups, skewed more towards younger consumers. This was not regarded as a concern, as younger consumers are the consumers of the future, and their sentiments are significant for retailers in going forward. As age was not needed for statistical comparisons, all sub-sets of the sample were accepted.

Table 5.1: Age composition of the sample.

Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-29	98	30,2	30,2	30,2
	30-39	132	40,6	40,6	70,8
	40-49	47	14,5	14,5	85,2
	50-59	19	5,8	5,8	91,1
	60 or older	29	8,9	8,9	100,0
	Total	325	100,0	100,0	

(Source: SPSS output)

5.2.3 Household Income Level

The income composition of the sample is presented in Table 5.2. The initial categories in the questionnaire were chosen so that respondents could not easily categorise

themselves as one of the lowest, or the highest income groups. A decision was made to analyse the data set in terms of five income categories, and the original seven groups were therefore re-coded accordingly. The five “reconfigured income” groups (ranging from low- to upper-high income groups, constituted 17.8%, 13.2%, 23.4%, 21.2%, 24.3% respectively. The sample size of N = 325 made it possible to conduct the required statistical procedures.

Table 5.2: Re-coded monthly net household income composition of the sample.

Monthly Net Household Income (Recoded) as rIncome						
Valid	Monthly Net Household Income	rIncome	Frequency	Percent	Valid Percent	Cumulative Percent
	Up to R4 999	Low-Income Consumers	58	17,8	17,8	17,8
	R5 000 - R9 999					
	R10 000 - R19 999	Low-Middle Income Consumers	43	13,2	13,2	31,1
	R20 000 – R39 999	High-Middle Income Consumers	76	23,4	23,4	54,5
	R40 000 - R49 999	Lower-High Income Consumers	69	21,2	21,2	75,7
	R50 000 - R59 999					
	R60 000 +	Upper-High Income Consumers	79	24,3	24,3	100,0
	Total		325	100,0	100,0	

(Source: SPSS output)

Although not required for analytical purposes, Table 5.3 is presented to show the composition of the sample in terms of income, age and gender. It is clear that the lower-income consumers were mostly younger compared to the higher-income groups, while the age groups between 30 and 50 years were more strongly represented.

Table 5.3: Composition of the sample in terms of income, gender and age.

Composition of Sample		
Grouping	Gender	Age
Low-Income Consumers	Male: 5 Female: 51 Prefer not to say: 2 Total: 58	18-29: 36 30-39: 7 40-49: 4 50-59: 3 60 or older: 8 Total: 58
Low-Middle Income Consumers	Male: 6 Female: 37 Prefer not to say: 0 Total: 43	18-29: 21 30-39: 8 40-49: 7 50-59: 3 60 or older: 4 Total: 43
High-Middle Income Consumers	Male: 17 Female: 58 Prefer not to say: 1 Total: 76	18-29: 20 30-39: 32 40-49: 6 50-59: 7 60 or older: 11 Total: 76
Lower-High Income Consumers	Male: 21 Female: 48 Prefer not to say: 0 Total: 69	18-29: 15 30-39: 34 40-49: 12 50-59: 4 60 or older: 4 Total: 69
Upper-High Income Consumers	Male: 32 Female: 46 Prefer not to say: 1 Total: 79	18-29: 6 30-39: 51 40-49: 18 50-59: 2 60 or older: 2 Total: 79
Total	Male: 81 Female: 240 Prefer not to say: 4 Total: 325	18-29: 98 30-39: 132 40-49: 47 50-59: 19 60 or older: 29 Total: 325

(Source: Researcher's own)

5.3 Construct Validity

Exploratory factor analysis (EFA) was used to determine the correlation among variables. Principal axis factoring (PAF) was used as an extraction method. PAF does not make any distributional assumptions and is more commonly used for Likert-type scale data which is not normally distributed. It was deemed most suitable for this research based on the reasoning that it is most commonly used to validate and develop scales of items in a questionnaire and that a large number of scales of items in the data set can be reduced to smaller subscales for other statistical analyses such as ANOVA, and regression testing (Pallant, 2007, p. 179). An EFA should always be conducted for

new scales, such as the case of Product Choices (Section A in the questionnaire), and does not require prior theory about existing items belonging to specific constructs. An EFA was also conducted for Ecological and Social Consciousness and Environmental Concern (Sections C and D in the questionnaire). Even though both of these scales were adapted from prior research, the wording of the questions was slightly adapted. Thus, the researcher was required to determine if the same factors would emerge with these particular items.

In order to test the assumption of factor correlation and to determine if an EFA was appropriate for the data, a correlation matrix was analysed, and a Kaiser Meyer-Olkin (KMO) and Bartlett's Test for Sphericity was conducted on Product Choices, Ecological and Social Consciousness and Environmental Concern. Once an EFA was determined as the appropriate choice, EFA analysis was conducted on each scale. The results of this are detailed below.

5.3.1 Product Choices

5.3.1.1 Product Choices: Correlation Matrix, KMO and Bartlett's Test for Sphericity

A bivariate correlation was completed, and all of the variables had at least one correlation above 0.30, which indicated that the items had medium to strong correlations. The KMO measure of sampling adequacy for all the combined items was 0.83. According to Backhaus, Erichson, Plinke and Weiber (2006), this value is considered to be meritorious and is greater than 0.6, thus meeting the assumption of factorability. The result of Bartlett's Test for Sphericity value indicated that it is statistically significant at $p < 0.000$ (where $p \leq 0.05$). This supports the factorability of the correlation matrix; therefore, factor analysis is appropriate for this section. Results of the KMO and Bartlett's Test for Sphericity are indicated in Table 5.4.

Table 5.4: Product Choices: KMO and Bartlett's Test for Sphericity.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,83
Bartlett's Test of Sphericity	Approx. Chi-Square	2184,00
	df	190
	Sig.	0,000

(Source: SPSS output)

The anti-image matrix correlation was analysed thereafter. According to Fields (2013), any measures of sampling adequacy (MSA) that is greater than 0.40 is generally accepted, and any variables with values that fall below this accepted region should be removed. In this table, the anti-image correlation values were between 0.69 and 0.89. Therefore, all variables were retained in the factor analysis.

The communalities of extraction were between 0.32 and 0.60, with the exception of A1.1, A1.2 and A5.2, which were less than 0.30. A decision was made not to remove these items based on insufficient evidence.

5.3.1.2 Product Choices: Exploratory Factor Analysis

The initial Eigenvalues of the total variance identified four empirical factors with a loading factor above 1, in line with the Eigenvalue 1 rule. Thus, according to the Kaiser criterion, four empirical factors needed to be extracted. These four factors accounted for an initial cumulative percentage of 54.45% of the variance in the data, and a 43.75% cumulative variance after rotation. Table 5.5 presents these findings.

Table 5.5: Product Choices: Total variance explained using PAF.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**5,04**	25,18	25,18	4,50	22,52	22,52	4,03	20,17	20,17
2	**3,28**	16,41	41,60	2,72	13,60	36,11	2,78	13,90	34,07
3	**1,50**	7,49	49,09	0,98	4,88	40,99	1,16	5,81	39,87
4	**1,07**	5,37	**54,46**	0,55	2,76	43,75	0,78	3,88	**43,75**
5	0,98	4,90	59,35						
6	0,91	4,55	63,90						
7	0,85	4,27	68,17						
8	0,79	3,93	72,10						
9	0,70	3,49	75,59						
10	0,68	3,39	78,98						
11	0,55	2,76	81,74						
12	0,52	2,59	84,33						
13	0,48	2,40	86,74						
14	0,48	2,39	89,13						
15	0,44	2,22	91,34						
16	0,42	2,11	93,45						
17	0,38	1,89	95,34						
18	0,37	1,85	97,19						
19	0,31	1,57	98,76						
20	0,25	1,24	100,00						

Extraction Method: Principal Axis Factoring.

(Source: SPSS output)

Using the Rotated Factor Matrix with a Varimax Kaizer Normalisation rotation method, the rotation converged in six iterations. The common consideration of questions that grouped into Factor 1 were options that were *More Sustainable*, while the common characteristic of questions that grouped in Factor 2 were options that were *More Affordable*. Two questions were grouped into Factor 3, consisting of options produced with the common characteristic of being *More Animal and Socially Friendly*, and one question grouped alone in Factor 4, consisting of a *Responsibly Produced* option. These results are presented in Appendix E, Table 8.1.

Ideally, there should be three or more items for each grouping (Pallant, 2007, p. 121), therefore even though four factors were obtained, the researcher considered a second-order factor analysis in order to reduce factors further. This, however, did not produce better outcomes, and a decision was made to use the four empirical factors from the first-order factor analysis. These empirical factors were tested for internal consistency in Section 5.4.1 to determine if these scales were reliable.

5.3.2 Ecological and Social Consciousness

5.3.2.1 Ecological and Social Consciousness; Correlation Matrix, KMO and Bartlett's test for Sphericity

One item, *C4: I tend to associate cheaper clothing products with undesirable working conditions of factory workers,* was omitted from the analysis due to low communality (0.14). A bivariate correlation was run, and all of the correlation coefficients were 0.47 and above. These items are considered to have medium to strong correlations. The KMO measure of sampling adequacy for all the combined items was 0.95. According to Backhaus et al. (2006), this value is considered to be marvellous and is greater than 0.60, thus meeting the assumption of factorability. The result of Bartlett's Test for Sphericity value indicates that it is statistically significant at $p < 0.000$ (where $p \leq 0.05$). This supports the factorability of the correlation matrix; therefore, factor analysis was regarded as appropriate for this section. Results of the KMO and Bartlett's Test for Sphericity are indicated in Table 5.6.

Table 5.6: Ecological and Social Consciousness: KMO and Bartlett's Test for Sphericity.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,95
Bartlett's Test of Sphericity	Approx. Chi-Square	3577,84
	df	78
	Sig.	0,000

(Source: SPSS output)

The anti-image matrix correlation was analysed thereafter. In this table, the anti-image correlation values ranged between 0.91 and 0.97, and therefore all variables were included in the factor analysis.

The communalities of extraction were between 0.54 and 0.77, and subsequently, no items were removed.

5.3.2.2 Ecological and Social Consciousness: Exploratory factor analysis

The initial Eigenvalues of the total variance explained identified one empirical factor with a loading factor above 1, in line with the Eigenvalue 1 rule. Thus, according to the Kaiser criterion, one factor needed to be extracted. This factor accounted for an initial cumulative percentage of 66% of the variance in the data, and 63.22% of the cumulative variance after rotation. Table 5.7 presents these findings.

Table 5.7: Ecological and Social Consciousness: Total Variance Explained using PAF.

Total Variance Explained						
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**8,58**	65,96	**65,96**	8,22	63,22	63,22
2	0,73	5,60	71,57			
3	0,65	4,99	76,56			
4	0,52	4,00	80,56			
5	0,43	3,30	83,86			
6	0,40	3,10	86,97			
7	0,34	2,62	89,58			
8	0,32	2,43	92,01			
9	0,27	2,07	94,08			
10	0,24	1,85	95,93			
11	0,20	1,56	97,49			
12	0,19	1,45	98,94			
13	0,14	1,06	100,00			
Extraction Method: Principal Axis Factoring.						

(Source: SPSS output)

Using the factor matrix with PFA, one factor was extracted, and four iterations were required. All of the items were grouped into one empirical factor and was labelled *Consciousness*. The solution could not be rotated as only one factor was extracted. It became apparent that consumers do not make a distinction between the two types of consciousness, as in their minds, it encompasses an integrated phenomenon. However, the researcher nevertheless split the factors into its two theoretical factors, namely *Ecological Consciousness* and *Social Consciousness*, for the discussion to distinguish a focus on the environment on the one hand, and a focus on mankind on the other. This is to explain respondents' perception of the two dimensions of the encompassing phenomenon as they are theoretically different. Both empirical and theoretical factors were tested for internal consistency, as is presented in Section 5.4.2.

5.3.3 Environmental Concern

5.3.3.1 Environmental Concern: Correlation Matrix, KMO and Bartlett's Test for Sphericity

A bivariate correlation was run, and all of the correlation coefficients were 0.32 and above, which indicated that the item correlations were moderate to strong. The KMO measure of sampling adequacy for all the combined items was 0.76. According to Backhaus et al. (2006), this value is considered to be middling and is greater than 0.60, thus meeting the assumption of factorability. The result of Bartlett's Test for Sphericity value indicates that it is statistically significant at $p < 0.000$ (where $p \leq 0.05$). This supports the factorability of the correlation matrix; therefore, factor analysis was appropriate for this section. Results of the KMO and Bartlett's Test for Sphericity are indicated in Table 5.8.

Table 5.8: Environmental Concern: KMO and Bartlett's Test for Sphericity.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,76
Bartlett's Test of Sphericity	Approx. Chi-Square	1033,38
	df	15
	Sig.	0,000

(Source: SPSS output)

The anti-image matrix correlation was analysed thereafter. In this table, the anti-image correlation values were between 0.67 and 0.84, and therefore all variables were retained for factor analysis.

The communalities of extraction were between 0.41 and 0.78, and no items were regarded as low enough to be removed.

5.3.3.2 Environmental Concern: Exploratory factor analysis

The initial Eigenvalues of the total variance explained identified two empirical factors in line with the Eigenvalue 1 rule. Thus, according to the Kaiser criterion, two factors needed to be extracted. These factors accounted for an initial cumulative percentage of

76.3% of the variance in the data and 66.93% of the rotated cumulative variance of the data set. Table 5.9 presents these findings.

Table 5.9: Environmental Concern: Total variance explained using PAF.

Total Variance Explained									
Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	**3,46**	57,65	57,65	3,14	52,38	52,38	2,32	38,62	38,62
2	**1,12**	18,65	**76,30**	0,87	14,56	66,93	1,70	28,31	**66,93**
3	0,66	10,94	87,24						
4	0,30	5,04	92,27						
5	0,27	4,52	96,79						
6	0,19	3,21	100,00						
Extraction Method: Principal Axis Factoring.									

(Source: SPSS output)

Using the Rotated Factor Matrix with a Varimax Kaizer Normalisation rotation method, the rotation converged in three iterations. The researcher initially had one theoretical factor to discuss for this section, namely *Environmental Concern*. However, factor analysis split it into two factors. The common consideration of questions that grouped into Factor 1 were items that portrayed *Immediate Environmental Concern* (IEC), while the common characteristic of questions that grouped in Factor 2 were items that portrayed *Future Environmental Concern* (FEC). The results are presented in Appendix F: Table 8.4. Both of these factors were tested for internal consistency in Section 5.4.3.

5.4 Construct Reliability

Following the factor analysis of each scale, the reliability of the constructs was measured using the scales' internal consistency that determines whether all the items in the scale measure the same construct (Pallant, 2007, p. 6). Cronbach's Alpha is the most common indicator used to measure a scale's internal consistency and is deemed to be valid if the Cronbach's Alpha coefficient is above 0.70. The following section details the results for each scale.

5.4.1 Product Choices: Cronbach's Alpha results

Internal consistency was tested on all four empirical factors extracted from the EFA analysis, namely *More Sustainable Options, More Affordable Options, More Animal and Socially Friendly Options* and the *Responsibly Produced Option*.

Reliability of *More Sustainable Options* with ten items was acceptable with a Cronbach's Alpha of 0.86. As seen in Table 5.10, deleting items from this scale would not increase the Cronbach's Alphas; therefore, all items in this factor were retained.

Table 5.10: Cronbach's Alpha results for More Sustainable Options*.*

Reliability Statistics				
Cronbach's Alpha	N of Items			
0,86	10			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A8.2	29,54	63,34	0,65	0,84
A3.2	29,76	63,70	0,61	0,85
A4.1	29,04	64,50	0,65	0,85
A7.2	29,58	64,34	0,63	0,85
A9.1	29,52	64,10	0,60	0,85
A2.2	29,76	65,73	0,56	0,85
A5.1	29,85	63,78	0,59	0,85
A10.1	29,48	66,62	0,52	0,86
A6.1	29,33	65,43	0,51	0,86
A1.1	29,20	66,99	0,45	0,86

(Source: SPSS output)

Reliability of *More Affordable Options* with seven items was acceptable with a Cronbach's Alpha of 0.77. As seen in Table 5.11, deleting items from this scale would not increase the Cronbach's Alphas; therefore, all questions in this factor were retained.

Table 5.11: Cronbach's Alpha results for More Affordable Options.

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
0,77	0,77	7			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
A7.1	22,51	20,49	0,58	0,40	0,73
A8.1	22,47	20,99	0,55	0,36	0,73
A2.1	22,16	21,36	0,53	0,31	0,74
A3.1	22,35	21,96	0,48	0,24	0,75
A9.2	22,54	21,37	0,47	0,24	0,75
A5.2	22,66	21,28	0,47	0,24	0,75
A1.2	21,90	23,67	0,37	0,18	0,76

(Source: SPSS output)

Reliability of *More Animal and Socially Friendly Options* with two items was not acceptable with a Cronbach's Alpha of 0.57. Table 5.12 presents these results.

Table 5.12: Cronbach's Alpha results for More Animal and Socially Friendly Options.

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
0,57	0,57	2			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
A4.2	2,85	1,90	0,40	0,16	
A6.2	3,42	1,72	0,40	0,16	

Internal consistency could also not be tested on *Responsibly Produced Option* as it only consisted of one item.

Therefore, only the two factors, *More Sustainable Options* and *More Affordable Options* factors were reliable. Based on these results, these two factors were retained and were used to test the hypothesis related to the willingness to purchase.

5.4.2 Ecological and Social Consciousness

Internal consistency was tested on the one empirical factor; namely, *Consciousness*, retained from the EFA analysis and both theoretical factors, *Ecological Consciousness* and *Social Consciousness,* which were produced from the literature.

Reliability of *Consciousness* with thirteen items (excluding C4 that was excluded in the EFA analysis due to low communality) was acceptable with a Cronbach's Alpha of 0.96. As seen in Table 5.13, deleting items from this scale would not increase the Cronbach's Alphas; therefore, all questions in this factor were retained.

Table 5.13: Cronbach's Alpha results for empirical factor: Consciousness

Reliability Statistics				
Cronbach's Alpha	N of Items			
0,96	13			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
C1	42,25	110,30	0,73	0,95
C2	42,04	111,93	0,66	0,96
C3	41,98	109,29	0,79	0,95
C5	41,81	109,54	0,78	0,95
C6	41,97	109,33	0,78	0,95
C7	41,65	111,90	0,69	0,96
C8	41,77	109,81	0,82	0,95
C9	42,07	107,93	0,83	0,95
C10	42,03	108,62	0,83	0,95
C11	41,87	109,06	0,81	0,95
C12	41,89	108,88	0,78	0,95
C13	42,06	108,47	0,85	0,95
C14	41,52	112,07	0,72	0,95

(Source: SPSS output)

Reliability of Ecological Consciousness with eight items was acceptable with a Cronbach's Alpha of 0.94. As seen in Table 5.14, deleting items from this scale would not increase the Cronbach's Alphas; therefore, all questions in this factor were retained.

Table 5.14: Cronbach's Alpha results for theoretical factor: Ecological Consciousness.

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
0,94	0,94	8			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
C1	24,06	43,00	0,72	0,54	0,94
C3	23,78	42,25	0,79	0,65	0,94
C5	23,61	42,60	0,77	0,64	0,94
C6	23,77	42,31	0,77	0,63	0,94
C9	23,88	41,31	0,84	0,77	0,93
C10	23,84	41,69	0,84	0,76	0,93
C12	23,70	42,11	0,78	0,63	0,94
C13	23,86	41,88	0,85	0,74	0,93

(Source: SPSS output)

Reliability of *Social Consciousness* with six items was acceptable with a Cronbach's Alpha of 0.85. As seen in Table 5.15, the Cronbach's Alpha would have increased to 0.89 if the researcher deleted C4, but she chose not to as internal consistency was already achieved without its removal.

Table 5.15: Cronbach's Alpha results for theoretical factor: Social Consciousness.

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
0,85	0,86	6			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
C2	17,77	17,23	0,63	0,43	0,82
C4	18,20	18,81	0,34	0,12	0,89
C7	17,38	16,71	0,73	0,60	0,80
C8	17,50	16,73	0,75	0,63	0,80
C11	17,61	16,54	0,72	0,58	0,80
C14	17,25	17,23	0,70	0,54	0,81

(Source: SPSS output)

As both theoretical factors and the one empirical passed internal consistency, they were both used to test hypotheses related to consumers' consciousness.

5.4.3 Environmental Concern

Internal consistency was tested on both empirical factors, *IEC (Immediate Environmental Concern)* and *FEC (Future Environmental Concern)* that were extracted from the EFA analysis. Reliability for the *IEC* construct with four items was acceptable with a Cronbach's Alpha of 0.84. As seen in Table 5.16, deleting items from this scale would not increase the Cronbach's Alphas; therefore, all questions in this factor were retained.

Table 5.16: Cronbach's Alpha results for IEC*.*

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
0,84	0,85	4			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
D3	11,90	6,18	0,79	0,65	0,75
D2	12,22	5,55	0,78	0,63	0,74
D1	12,07	7,02	0,56	0,41	0,84
D6	12,42	5,49	0,61	0,45	0,84

(Source: SPSS output)

Reliability for the *FEC* construct with two items was acceptable with a Cronbach's Alpha of 0.87. As seen in Table 5.17, deleting items from this scale would not increase the Cronbach's Alphas; therefore, both questions were retained.

Table 5.17: Cronbach's Alpha results for FEC.

Reliability Statistics					
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items			
0,87	0,87	2			
Item-Total Statistics	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
D5	3,65	1,28	0,77	0,59	
D4	3,63	1,41	0,77	0,59	

(Source: SPSS output)

As both factors passed internal consistency, they were used to test the hypotheses related to environmental concern.

5.5 Hypothesis Testing

Following the confirmation of reliability through EFA analysis and validity through internal consistency assessment, the researcher aimed to test each of the seven hypotheses. In the following sections, descriptive data were provided for each construct, the normality and homogeneity of the data were assessed, and relevant statistical tests were performed in order to test each hypothesis.

5.5.1 South African consumer's consciousness of sustainable production and consumption practices (Hypothesis 1)

The first research question sought to establish how conscious South African consumers are, in general, of sustainable clothing production and consumption practices. It was proposed that:

Hypothesis 1.1: South African consumers are moderately conscious of sustainable clothing production and consumption practices.

Hypothesis 1.2: South African consumers' consciousness of sustainable clothing production and consumption practices differs significantly across different income segments that generally guide retailers' market segmentation.

The two theoretical dimensions of consciousness were used to test the hypotheses related to this question, namely *Ecological Consciousness* and *Social Consciousness*. In order to understand if South Africans are moderately conscious, the means of both dimensions were interpreted as the scale ranged from 1 = low, to 5 = high. In order to test for possible significant differences in income groups, a one-way ANOVA was conducted.

5.5.1.1 Descriptive Statistics: Ecological and Social Consciousness

The overall mean score for *Ecological Consciousness* was M = 3.40, and SD = 0.92, that indicated that respondents were moderately ecologically conscious of sustainable production and consumption practices. The mean for *Social Consciousness* was M = 3.52, and SD = 0.81, that displayed that consumers were slightly more socially

conscious of sustainable production and consumption practices than they were ecologically conscious. Both findings proved that South African consumers were moderately conscious of sustainable clothing production and consumption practices. Figure 5.2 presents these findings.

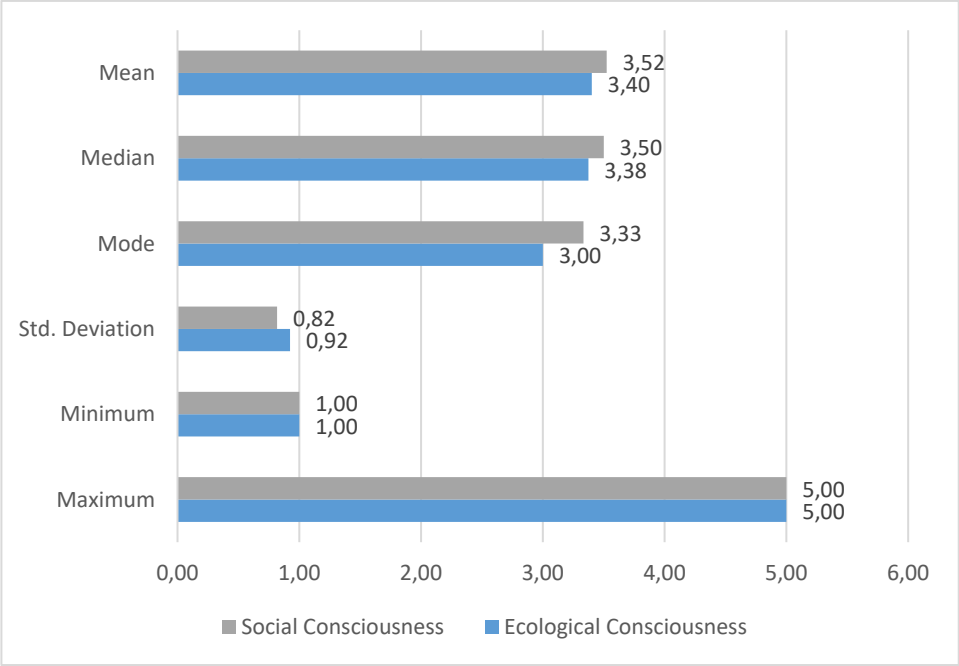

Figure 4.2: Descriptive Statistics for Ecological and Social Consciousness (Source: SPSS output).

Therefore, H1.1, that proposed that South African consumers are moderately conscious of sustainable clothing production and consumption practices, is supported by these findings.

In terms of means across income groups, overall, upper-high income consumers achieved the highest means across both dimensions of the scale. However, the means ranged between M = 3.30 and M = 3.50 for *Ecological Consciousness*, indicating that, notwithstanding income, all consumers are moderately conscious of environmental issues. For *Sustainable Consciousness*, the means ranged from M = 3.46 to M = 3.62, again indicating moderate social consciousness across all income groups. In all instances, consumers' social consciousness was slightly higher than their ecological consciousness. The results are presented in Table 5.18

Table 5.18: Descriptive statistics by reconfigured income groups: Ecological and Social Consciousness.

		Ecological Consciousness					Social Consciousness				
rIncome Group	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Low-Income Consumers	58	3,43	0,94	0,12	1	5	3,46	0,84	0,11	1	5
Low-Middle Income Consumers	43	3,48	0,80	0,12	2	5	3,59	0,72	0,11	2	5
High-Middle Income Consumers	76	3,32	0,92	0,11	1	5	3,47	0,81	0,09	1	5
Lower-High Income Consumers	69	3,30	0,87	0,10	1	5	3,49	0,75	0,09	1	5
Upper-High Income Consumers	79	3,51	1,03	0,12	1	5	3,62	0,92	0,10	1	5
Total	325	3,40	0,92	0,05	1	5	3,52	0,82	0,05	1	5

(Source: SPSS output)

5.5.1.2 ANOVA: Ecological and Social Consciousness

The assumptions of normality and homogeneity were tested before the ANOVA was conducted. A Kolmogorov-Smirnov test was used to test normality for all sub-sets of the sample as all sub-sets had more than 50 cases with the exception of low-middle income consumers who had less than 50 cases (Pallant, 2007, p. 199). In this case, a Shapiro-Wilks test was used. These tests found that for both *ecological* and *social consciousness*, the reconfigured income groups were normally distributed for the majority of the consumers as the p-values/sig were equal to and higher than the 0.05 limit (see Appendix G: Table 8.7). For the data sets that were not normally distributed, normality was still assumed as the sample sizes for each were larger than 30 consumers (Pallant, 2007, p. 204).

According to Levene's Tests for homogeneity of variances, the p-value for all groups was greater than 0.05; therefore, the assumption of homogeneity was not violated, and equal variances were assumed (see Appendix G: Table 8.8).

Based on a one-way ANOVA test to compare for differences between the reconfigured income groups (dependent variable) and *Ecological Consciousness* (independent variable), as illustrated in Table 5.19, the p-values are greater than 0.05, indicating that differences among the groups are not statistically significant. Based on a one-way ANOVA to compare for differences between the reconfigured income groups (dependent

variable) and *Social Consciousness* (independent variable), as illustrated in Table 5.19, the p-values are greater than 0.05, indicating that differences among the groups are not statistically significant.

Table 5.19: ANOVA results for Ecological *and* Social Consciousness*.*

Test of Homogeneity of Variances								
	Ecological Consciousness				Social Consciousness			
	Levene Statistic	df1	df2	Sig.	Levene Statistic	df1	df2	Sig.
Based on Mean	1,18	4	320	0,318	1,27	4	320	0,281
Based on Median	0,91	4	320	0,460	1,06	4	320	0,376
Based on Median and with adjusted df	0,91	4	300	0,460	1,06	4	309	0,376
Based on trimmed mean	1,12	4	320	0,347	1,15	4	320	0,331

(Source: SPSS output)

Therefore, H1.2, that proposed that South African consumers' consciousness of sustainable clothing production and consumption practices differs significantly across the different income segments that generally guide retailers' market segmentation, is not supported by these findings.

5.5.2 South African consumers' concern about the environment and the planet's natural resources (Hypothesis 2)

The second research question sought to establish how concerned South African consumers are, in general, about the environment and the planet's natural resources.

It was proposed that:

Hypothesis 2.1: South African consumers are moderately concerned about the environment and the planet's natural resources.

Hypothesis 2.2: South African consumers' concern about the environment and the planet's natural resources differs significantly across different income segments that generally guide retailers' market segmentation.

Two empirical factors, namely *IEC* and *FEC* (*Immediate* and *Future Environmental Concern*), were used to test the hypotheses related to this question. In order to understand if South Africans are moderately concerned, the means of both dimensions

were interpreted as the scale ranged from 1 = low, to 5 = high. In order to test if there is a significant difference in income groups, a one-way ANOVA was conducted.

5.5.2.1 Descriptive statistics: IEC and FEC

The overall mean score for *IEC* was M = 4.05, and SD = 0.80 that indicated that consumers were highly concerned about the immediate state of the environment and the planet's natural resources. The mean for *FEC* was M = 3.64, and SD = 1.09, that indicated that consumers less were concerned, compared to *IEC*, and were indeed moderately concerned about the future state of the environment and the planet's natural resources. Based on the results. South African consumers seemed highly concerned about the immediate state of the environment and the planet's natural resources but are slightly less concerned (moderately concerned) about its future. Both findings proved that South African consumers were at least moderately concerned about the environment and the planet's natural resources. Figure 5.3 presents these findings.

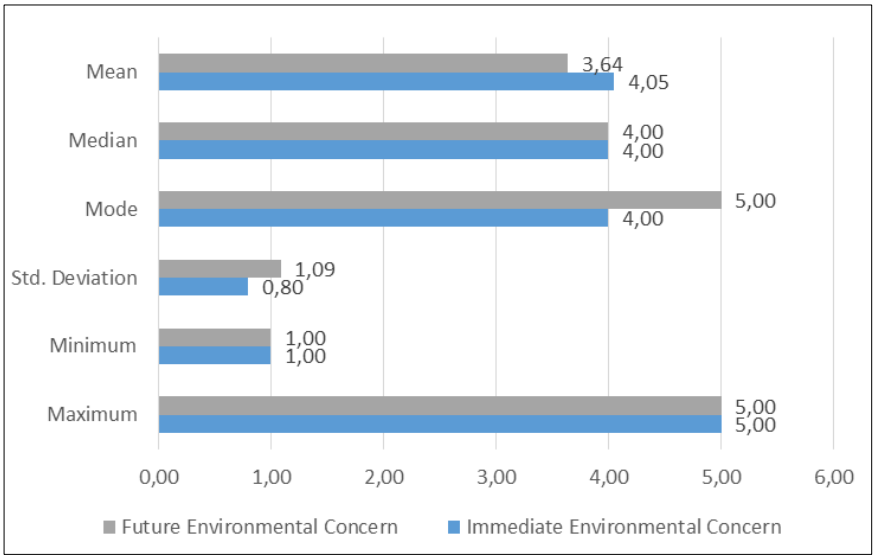

Figure 5.3: Descriptive statistics for IEC and FEC (Source: SPSS output).

Therefore, H2.1, that proposed that South African consumers are moderately concerned about the environment and the planet's natural resources, is supported by these findings.

In terms of means across income groups, overall, lower-middle-income consumers achieved the highest means across both dimensions of the scale; however, the means ranged between M = 3.97 and M = 4.19 for *IEC*, indicating that, notwithstanding income, all consumers are highly concerned for the environment. For *FEC*, the means ranged from M = 3.44 to M = 3.73, again indicating moderate *FEC* across all income groups. In all instances, consumers' *IEC* was higher than their *FEC*. Table 5.20 presents these results.

Table 5.20: Descriptive statistics by income groups: IEC and FEC.

		Immediate Environmenta Concern					Future Environmental Concern				
Group	N	Mean	Deviation	Std. Error	Minimum	Maximum	Mean	Deviation	Std. Error	Minimum	Maximum
Low-Income Consumers	58	4,00	0,84	0,11	1	5	3,72	1,08	0,14	1	5
Low-Middle Income Consumers	43	4,19	0,80	0,12	1	5	3,73	0,94	0,14	1	5
High-Middle Income Consumers	76	4,12	0,96	0,11	1	5	3,63	1,13	0,13	1	5
Lower-High Income Consumers	69	3,97	0,71	0,09	2	5	3,44	1,16	0,14	1	5
Upper-High Income Consumers	79	4,03	0,66	0,07	2,5	5	3,72	1,08	0,12	1	5
Total	325	4,05	0,80	0,04	1	5	3,64	1,09	0,06	1	5

(Source: SPSS output)

5.5.2.2 ANOVA: IEC and FEC

The assumptions of normality and homogeneity were tested before the ANOVA was conducted. A Kolmogorov-Smirnov test was used to test normality for all sub-sets of the sample as all sub-sets had more than 50 cases with the exception of low-middle income consumers who had less than 50 cases (Pallant, 2007, p. 199). In this case, a Shapiro-Wilks test was used. These tests found that for both *IEC* and *FEC*, the reconfigured income groups were not normally distributed for the majority of all the data sets as the p-values/sig were lower than the 0.05 limit (see Appendix F: Table 8.5). However, normality was still assumed as the sample sizes for each were larger than 30 (Pallant, 2007, p. 204).

According to Levene's Tests for homogeneity of variances, the p-value for all groups was greater than 0.05; therefore, the assumption of homogeneity was not violated, and equal variances were assumed (see Appendix F: Table 8.6).

Based on a one-way ANOVA test to compare for differences between the reconfigured income groups (dependent variable) and *IEC* (independent variable), as illustrated in Table 5.21, the p-values are greater than 0.05 indicating that differences among the groups are not statistically significant. Based on a one-way ANOVA to compare for differences between reconfigured income groups (dependent variable) and *FEC* (independent variable), as illustrated in Table 5.21, the p-value is greater than 0.05, indicating that differences among the groups are not statistically significant.

Table 5.21: ANOVA results for IEC and FEC.

ANOVA										
	Immediate Environmental Concern					Future Environmental Concern				
	Squares	df	Square	F	Sig.	Squares	df	Square	F	Sig.
Between Groups	1,84	4,00	0,46	0,72	0,5799	3,87	4,00	0,97	0,81	0,5182
Within Groups	205,07	320,00	0,64			380,90	320,00	1,19		
Total	206,91	324,00				384,77	324,00			

(Source: SPSS output)

Therefore, H2.2, that proposed that South African consumers' concern about the environment and the planet's natural resources differs significantly across different income segments that generally guide retailers' market segmentation, is not supported by these findings.

5.5.3 South African consumers' willingness to purchase sustainably produced clothing merchandise when they are faced with similar affordable product alternatives (referring to Hypothesis 3)

The third research question sought to establish how the price of sustainably produced clothing merchandise influences South African consumers' willingness to purchase when they are faced with similar affordable product alternatives. It was proposed that:

Hypothesis 3.1: South African consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar, more affordable product alternatives.

Hypotheses 3.2: The relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when they are faced with similar product alternatives.

5.5.3.1 Descriptive statistics: Product Choices

The two empirical factors of product choices, namely *More Sustainable Options* and *More Affordable Options*, were considered. In order to understand if South Africans are willing to purchase sustainably produced clothing merchandise when faced with similar, more affordable product alternatives, the means of both dimensions were interpreted as the scale ranged from 1 = low, to 5 = high. In order to test if there is a significant difference in income groups, a one-way ANOVA was conducted.

The overall mean score for *More Sustainable Options* was M = 3.28, SD = 0.89. The mean for the *More Affordable Items* was M = 3.73, SD = 0.76. The difference in means indicated that consumers seemed slightly more likely to purchase the more affordable options than the more sustainable options. However, differences were small and in both cases, consumers only seemed moderately willing to purchase more sustainable options. Therefore, one cannot unequivocally conclude that South African consumers are less willing to purchase sustainably produced clothing merchandise when they are faced with similar affordable product alternatives**.** Figure 5.4 presents these findings.

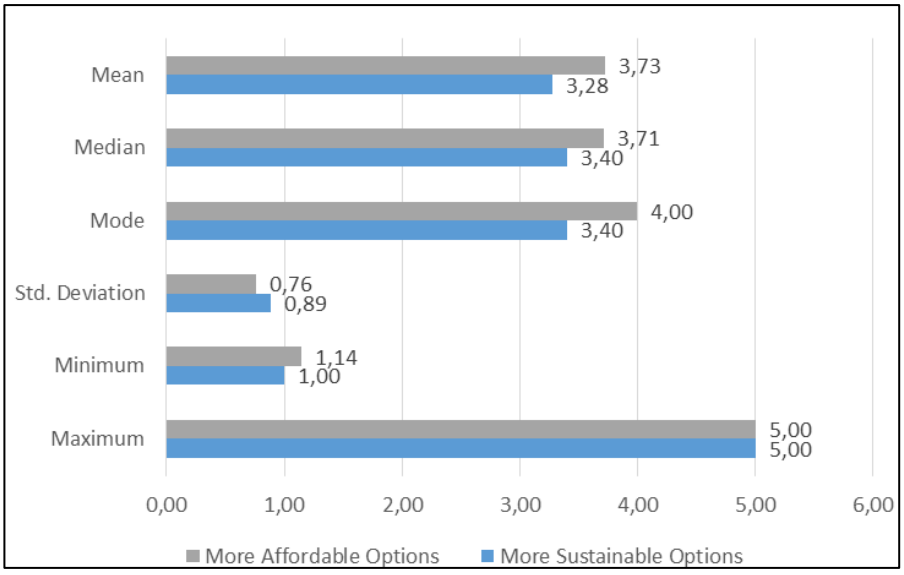

Figure 5.4: Descriptive statistics for Product Choices (Source: SPSS output).

Therefore, H3.1, that proposed that South African consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar affordable product alternatives is not supported by these findings.

In terms of means across income groups, all income groups seem more likely to purchase more affordable options than the more sustainable options. Table 5.22 presents these results. However, the likelihood of purchasing (M < 0.40) indicates that neither the likelihood of purchasing more affordable nor more sustainable options are particularly strong. This indicates that irrespective of income group, consumers are price-sensitive, which could be attributed to the economic climate at present.

Table 5.22: Descriptive statistics by income groups: Product Choices

		More Sustainable Options					More Affordable Options				
rIncome Group	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Low-Income	58	3,19	1,00	0,13	1	5	3,73	0,94	0,12	1	5
Low-Middle Income Consumers	43	3,18	0,72	0,11	1	4,5	3,75	0,69	0,10	2	5
High-Middle Income Consumers	76	3,21	0,91	0,10	1	5	3,80	0,73	0,08	2	5
Lower-High Income Consumers	69	3,32	0,85	0,10	2	5	3,70	0,63	0,08	2	5
Upper-High Income Consumers	79	3,43	0,89	0,10	1	5	3,68	0,80	0,09	2	5
Total	325	3,28	0,89	0,05	1	5	3,73	0,76	0,04	1	5

(Source: SPSS output)

5.5.3.2 ANOVA: Product Choices

The assumptions of normality and homogeneity were tested before the ANOVA was conducted. A Kolmogorov-Smirnov test was used to test normality for all sub-sets of the sample, except for low-middle income consumers who had less than 50 cases (Pallant, 2007, p. 199). In this case, a Shapiro-Wilks test was used. These tests found that for both sustainable and affordable options, the reconfigured income groups were normally distributed for the majority of the consumers as the p-values/sig were equal to and higher than the 0.05 limit (see Appendix E: Table 8.2). For the data sets that were not normally distributed, normality was still assumed as the sample sizes for each were larger than 30 consumers (Pallant, 2007, p. 204).

According to Levene's Tests for homogeneity of variances, the p-value for all groups in terms of the choice of sustainable items was $p > 0.05$; therefore the assumption of homogeneity was not violated, and equal variances were assumed (see Appendix E: Table 8.3).

Based on a one-way ANOVA test to compare for differences between reconfigured income groups (dependent variable) and *More Sustainable Options* (independent variable), as illustrated in Table 5.23, the p-value is greater than 0.05, indicating that differences among the groups are not statistically significant. Based on a one-way ANOVA to compare for differences between reconfigured income groups (dependent variable) and *More Affordable Options* (independent variable), as illustrated in Table 5.23, the p-value is greater than 0.05, indicating that differences among the groups are not statistically significant.

Table 5.23: ANOVA results for Product Choices.

ANOVA										
	More Sustainable Options					More Affordable Options				
	Sum of Squares	df	Mean Square	F	Sig.	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,11	4,00	0,78	0,99	0,4158	0,62	4,00	0,16	0,27	0,8987
Within Groups	252,44	320,00	0,79			186,54	320,00	0,58		
Total	255,55	324,00				187,16	324,00			

(Source: SPSS output)

Because income differences could not be confirmed, H3.2, that proposed that the relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives, is not supported by these findings.

5.5.4 The relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources (referring to Hypothesis 4)

The last research question sought to establish the relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources. It was proposed that:

Hypothesis 4: There is a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources.

In order to determine the relationship between the variables, i.e. *Consciousness*, *Concern and Income Groups,* a multiple regression analysis was conducted. The tests were conducted based on the one empirical factor of *Consciousness* to explicitly reflect the sample's perceptions/views rather than the theoretical factors that do not necessarily present the issue in consumers' minds. *Consciousness* and *Re-configured Income Groups* were the independent variables, referred to by Chiba (2015) as the predictor, explanatory or regressor variables. The two empirical factors of concern were the dependent variables. As both *IEC* and *FEC* represent *Environmental Concern*, a correlation and regression were run between *Consciousness, Re-configured Income Groups* and *IEC*, and between *Consciousness*, *Re-configured Income Groups* and *FEC*.

Based on initial correlations, only *Consciousness* was included as an independent variable, as according to Pearsons correlation, *Re-configured Income Groups* did not correlate with *IEC* (1-tailed; p = 0.326), and FEC (1-tailed; p = 0.302).

5.5.4.1 Descriptive statistics: Consciousness and IEC

The mean for *Consciousness* was M = 3.49, and SD = 0.87. The mean score for *IEC* was M = 4.05, and SD = 0.80. Four cases were omitted as they were outliers.

5.5.4.2 Multiple regression: Consciousness and IEC

In order to measure the strength of the relationship between *Consciousness* and *IEC*, Pearson's coefficient of correlation analyses was conducted. Based on an initial correlation and histogram, four cases were omitted from the sample as they were outliers. According to Pearson's correlation, (1-tailed; p = 0.00), a significant linear relationship exists between consumers' consciousness and *IEC*. Therefore, when more conscious, consumers are more concerned about immediate consequences. These results are presented in Appendix H: Table 8.9.

Pearson's correlation coefficient, represented by 'r' in the model summary, is the measure of the strength of the linear relationship between the independent variable (consciousness) and the dependent variable (*IEC*). An r = 1 indicates a perfect positive

correlation, while r = 0 indicates no correlation, and r = -1 indicates a perfect negative correlation between variables. As r = 0.44 in this case, according to Cohen (1988, p. 79-81), this indicates a positive relationship between consumers' consciousness and *IEC*. In terms of the coefficient of determination, which is represented by r^2, it can be reported that 19% of the variance in *IEC* is explained by consumers' Consciousness and that they are relatively associated, as the closer r is to 100%, the stronger the association is between *IEC* and *Consciousness*. Table 5.24 presents these results.

Table 5.24: Model summary: Consciousness and IEC

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.436[a]	0,19	0,19	0,66
a. Predictors: (Constant), Consciousness				
b. Dependent Variable: Immediate Environmental Concern				

(Source: SPSS output)

To assess the statistical significance between consciousness and *IEC*, an ANOVA was conducted. Because p is less than 0.05, it is evident that a significant relationship exists between *Consciousness* and *IEC*. Table 5.25 presents these results.

Table 5.25: ANOVA results for Consciousness and IEC.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32,46	1	32,46	74,90	.000[b]
	Residual	138,24	319	0,43		
	Total	170,70	320			
a. Dependent Variable: Immediate Environmental Concern						
b. Predictors: (Constant), Consciousness						

(Source: SPSS output)

In order to determine how much consciousness contributed to the prediction of *IEC*, the Standard Coefficient Beta was assessed. The beta coefficient for consciousness is 0.44, and based on p = 0.00; *Consciousness* makes a significant contribution to the prediction of *IEC*. These results are presented in Appendix H: Table 8.10.

5.5.4.3 Descriptive statistics: Consciousness and FEC

The mean for the *Consciousness* was M = 3.49, SD = 0.87. The mean score for *FEC* was M = 3.64, and SD = 1.09. No cases were omitted.

5.5.4.4 Multiple regression: Consciousness and FEC

According to Pearson's correlation, (1-tailed), p = 0.00, a significant linear relationship exists between consumers' *Consciousness* and *FEC*. Therefore, when more conscious, consumers are more concerned about future consequences. These results are presented in Appendix H: Table 8.11.

Pearson's correlation coefficient, represented by 'r' in the model summary, is the measure of the strength of the linear relationship between the independent variable (*Consciousness*) and the dependent variable (*FEC*). As r = 0.30 in this case, according to Cohen (1988, p. 79-81), a positive relationship between *Consciousness* and *IEC* exists. In terms of the coefficient of determination, as $r^2 = 0.09$, it can be reported that 9% of the variance in *FEC* is explained by consciousness and that they are relatively associated, as the closer r is to 100%, the stronger the association is between *FEC* and consciousness. Table 5.26 presents these results.

Table 5.26: Model summary: Consciousness and FEC

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.298[a]	0,09	0,09	1,04
a. Predictors: (Constant), Consciousness				
b. Dependent Variable: Future Environmental Concern				

(Source: SPSS output)

To assess the statistical significance between *Consciousness* and *FEC*, an ANOVA was conducted. Because p is less than 0.05, it is evident that a significant relationship exists between *Consciousness* and *FEC*. Table 5.27 presents these results.

Table 5.27: ANOVA results for Consciousness and FEC.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34,28	1	34,28	31,59	.000[b]
	Residual	350,49	323	1,09		
	Total	384,77	324			
a. Dependent Variable: Future Environmental Concern						
b. Predictors: (Constant), Consciousness						

(Source: SPSS output)

In order to determine how much *Consciousness* contributed to the prediction of *IEC*, the Standard Coefficient Beta was assessed. The beta coefficient for consciousness is 0.30, and based on p = 0.000; *Consciousness* makes a significant contribution to the prediction of *FEC*. These results are presented in Appendix H: Table 8.12.

Therefore, H4, that proposed that there is a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources, is supported by these findings.

5.6 The Importance of Product Characteristics

Section B of the questionnaire investigated the importance of product characteristics. Even though no particular hypothesis was associated with this section, it was used to triangulate the results of the previous hypotheses. This section investigated which product characteristics consumers ranked as highly important during their purchase decisions, and to what extent income influenced these decisions.

As seen in Figure 5.5 below, the fit of the garment was the most important, based on the highest mean score M = 4.70, and SD = 0.61. The quality of the garment attained the second highest mean score M = 4.42, and SD = 0.78. Price of the garment was the third most important characteristic with a mean score M = 4.32, and SD = 0.87. Country of manufacture, care about the environment, and the fashionability of the garment received the lowest mean scores in terms of importance to the consumer when making a purchasing decision.

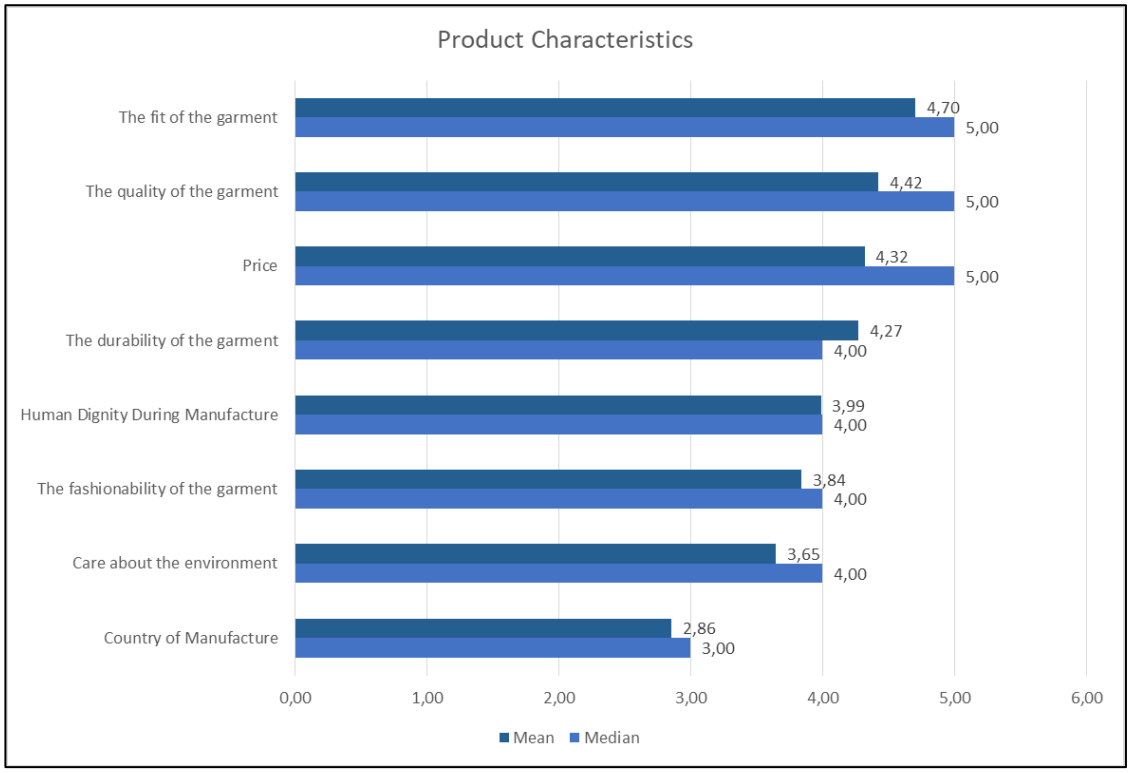

Figure 5.5: Descriptive statistics: Product Characteristics (Source: SPSS output).

In terms of means across income groups, overall, upper-high income consumers considered fit, quality, fashionability and country of origin more important than what other income groups did. Lower-high income consumers considered price as the most important characteristic when making a purchase decision. Overall, low-middle income consumers considered durability, human dignity during manufacture, and care for the environment more important than what the other income groups did. Table 5.32 presents these results.

Table 5.28: Descriptive statistics by income groups: Product Characteristics.

		Fit		Quality		Price		Durability		Humna dignity during manufacture		Fashionability		Care about the environment		Country of origin	
rIncome Group	N	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Low-Income Consumers	58	4,57	0,90	4,28	1,01	4,22	1,03	4,16	1,07	3,97	1,06	3,71	1,17	3,59	1,14	2,67	1,37
Low-Middle Income Consumers	43	4,72	0,55	4,37	0,79	4,35	0,72	4,49	0,63	4,07	0,83	3,81	0,79	3,77	0,97	2,67	1,19
High-Middle Income Consumers	76	4,67	0,60	4,25	0,77	4,51	0,81	4,25	0,87	3,93	0,98	3,72	0,93	3,59	1,01	2,87	1,26
Lower-High Income Consumers	69	4,71	0,57	4,52	0,68	4,20	0,90	4,19	0,84	4,04	1,01	3,78	0,91	3,59	0,94	2,72	1,22
Upper-High Income Consumers	79	4,82	0,38	4,63	0,60	4,29	0,83	4,33	0,67	3,96	1,07	4,11	0,86	3,73	1,07	3,19	1,41
Total	325	4,70	0,61	4,42	0,78	4,32	0,87	4,27	0,84	3,99	1,00	3,84	0,95	3,65	1,03	2,86	1,31

(Source: SPSS output)

5.7 Chapter Summary

This chapter provided numerical evidence of the results, described the profile of the sample, and then indicated how the data were analysed to reach the conclusions. The research produced evidence that could be used to answer the research questions and to verify the hypotheses. A summary of the chapter is provided below, and the findings are discussed in the next chapter.

A total of 325 completed questionnaires were collected for analysis, comprising of around 1:3 males versus females of whom slightly more than 70% were aged 40 years and younger.

Concerning South African consumers' consciousness of sustainable production and consumption practices (Hypothesis 1):

H1.1, that proposed that South African consumers are moderately conscious of sustainable clothing production and consumption practices, is supported by the findings. However, H1.2, that proposed that South African consumers' consciousness of sustainable clothing production and consumption practices differs significantly across the different income segments that generally guide retailers' market segmentation, is not supported by these findings.

Concerning South African consumers' concern about the environment and the planet's natural resources (Hypothesis 2):

H2.1, that proposed that South African consumers are moderately concerned about the environment and the planet's natural resources, are supported by these findings. However, H2.2, that proposed that South African consumers' concern about the environment and the planet's natural resources differs significantly across different income segments that generally guide retailers' market segmentation, is not supported by these findings.

Concerning South African consumers' willingness to purchase sustainably produced clothing merchandise when they are faced with similar affordable product alternatives (referring to Hypothesis 3):

H3.1, that proposed that South African consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar affordable product alternatives, is not supported by these findings.

H3.2, that proposed that the relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives, is not supported by these findings. In the end, therefore, this study could not confirm that higher-income consumers would be more willing to pay for sustainably produced clothing that is generally more expensive.

Concerning the relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources (referring to Hypothesis 4):

H4, that proposed a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources is supported by the findings.

When prompted to rank the importance of clothing product characteristics, the most important characteristics were identified as intrinsic in nature, namely fit and quality, with price being the third most important. The importance of sustainability issues and country

of origin were lower in the hierarchy, which confirmed the preceding findings, namely that consumers are generally only moderately concerned about environmental and sustainability issues when purchasing clothing.

A pertinent outcome of the study is that in South Africa, income level does not seem to influence consumers' consciousness and concern about the sustainability of clothing production practices, although fortunately, all are moderately conscious and concerned about the issue. Also, income level apparently does not influence consumers' willingness to purchase sustainably produced clothing that is generally more expensive than similar items.

Chapter 6: Discussion

6.1 Introduction

The research aimed to investigate the South African consumers' environmental and social consciousness and related concern, and their willingness to purchase sustainably produced clothing merchandise across different income levels. The study was limited to consumers who fairly regularly purchase clothing merchandise for themselves and others, and a balanced representation across different income groups was required for statistical analysis. The researcher expected that there would be significant differences across income levels based on the literature review conducted in Chapter 2, which found that socioeconomic factors, especially that of income levels, influence South African consumer's consciousness of sustainable clothing production and consumption practices, concern for the environment and willingness to purchase sustainably produced clothing merchandise.

This chapter presents the findings of the research following the results of the study in Chapter 5. It is structured by discussing the sample profile, and the findings of each hypothesis thereafter. All seven research hypotheses were addressed by integrating the theory from the literature review conducted in Chapter 2 with the results from Chapter 5. Even though a specific hypothesis was not devised for Product Characteristics, the findings of this section were used as a means of triangulation for findings related to Hypothesis 3. This chapter concludes with a summary of findings.

6.2 Sample

As indicated in the previous chapter, the gender composition of the total sample was made up of 24.9% males, 73.8% females resulting in a more or less 1:3 ratio with 1.2% of respondents that preferred not to disclose their gender. As females constitute 51.1% of the general South African population whilst males account for the remaining 48.9% (Statistics South Africa, 2020c), the sample was not indicative of the general population. As such, it was skewed more towards the female gender. However, this did not pose a problem as gender was not required for any statistical comparisons or inferences.

The age composition of the sample was made up of 30.2% aged between 18-29 years, 40.6% aged between 30-39 years and the remaining 29.2% aged 40 years and older. South Africans between the ages of 18-29 only comprise 20.5% of the current population, and furthermore, South Africans aged between 30-39 years only make up 17.5% of the population (Statistics South Africa, 2020c). Therefore, the sample recruited for this research was inconsistent with the general population. As such, it was skewed more towards younger consumers. However, this was not regarded as a concern as younger consumers are the consumers of the future, and their sentiments are significant for retailers going forward.

In terms of monthly net household income, 17.8% of the sample earned up to R9999 while 24.3% of the sample earned R60 000 and over. The average monthly net household income for South African households is R11 514 (Statistics South Africa, 2015). Accessing respondents from lower-income groups was difficult to achieve for the researcher due to language barriers and accessibility of respondents, and the sample was disproportionately skewed towards affluent income groups.

As the sample was not representative of all of the aspects of gender, age and income distributions of the general South African population, it was subject to bias based on femininity, youth and wealth. The failure to obtain a representative sample was noted in Chapter 4, based on the limitations of non-probability sampling which often yields a sub-standard representation of the population (Saunders & Lewis, 2018, p. 141).

6.3 Hypotheses

Guided by literature, the study proposed specific hypotheses that directed the study and the data analysis. The outcomes are discussed in the following section.

6.3.1 Hypothesis 1.1: South African consumers are moderately conscious of sustainable clothing production and consumption practices.

Hypothesis 1.1 was based on numerous studies, dated and more recent, which found that in general, South Africans were reported to be more knowledgeable and more conscious of sustainable practices than other nationalities on the African continent (Neville, 2010; Meyer, 2018). Environmental consciousness, also defined as the inclination to respond to environmental issues in a particular way, is most often regarded

as the first step to becoming an ecological and socially conscious consumer (Roberts & Bacon, 1997). As consciousness is measured in terms of knowledge, attitudes, perceptions, and behaviours (Philippsen et al., 2017), and includes the presence of objective and subjective knowledge (Tilikidou et al., 2002), it was anticipated that South African consumers would be at least moderately conscious of sustainable clothing production and consumption practices.

The findings of this study, based on the mean scores that ranged from 1 to 5 (maximum) calculated for both empirical dimensions relating to "consumers' consciousness", namely *Ecological Consciousness* and *Social Consciousness*, support the hypothesis that South African consumers are moderately conscious of sustainable clothing production and consumption practices. The overall mean scores that were calculated (maximum = 5) indicated that respondents were moderately ecologically conscious of sustainable production and consumption practices (M = 3.40), as well as moderately socially conscious of sustainable production and consumption practices (M = 3.52). Based on the means, consumers were slightly more socially conscious of sustainable production and consumption practices than being ecologically conscious. Further analysis of the data – investigating responses to single items – indicated that overall, 50% of the sample were conscious of sustainable clothing production and consumption practices, while 31% of the sample remained neutral, and 19% of the sample were not very conscious. Consistent with the means of the theoretical dimensions, 48% of the sample seemed ecologically conscious, while 53% of the sample were socially conscious. These findings support the research of Neville (2010), who found that most South Africans, regardless of their socioeconomic status, seem conscious of the effects of climate change. The same applies to Meyer's more recent finding (2018), indicating that 50% of his sample were extremely knowledgeable concerning various environmental topics, including sustainability.

Ecological Consciousness: The two most prominent aspects of ecological consciousness exhibited by the sample – investigating responses to single items – was their preference for products that were produced by contributing the least amount of pollution to the environment (57% of the sample), and a preference for clothing products that are overall less harmful to the environment (51% of the sample). On the contrary,

only 37% of the sample indicated that they make a conscious effort to limit the use of products that were produced from scarce resources. While it is essential and beneficial that on average, consumers are ecologically conscious of the contaminating and toxic nature of clothing production and consumption practices, it is distressing that only a third of the sample realised the impact of production and consumption practices on the depletion of scarce resources. At the current rate of deterioration, South Africans in particular, are already vulnerable through their reliance on natural resources, such as water. Scarce resources are a paramount concern in South Africa, as we generally suffer from low rainfall and drought conditions and the apparel industry further contributes to the deterioration of the environment due to its reliance on non-reliable fossil fuels used in the production of various textiles (Muller, 2019). Hence, the importance of making a conscious effort to limit the use of products made from scarce resources is critical to sustainable consumption. The adoption of more sustainable production and consumption practices in the clothing industry is, therefore, a top priority and confirms that more effort is needed to make consumers ecologically conscious of its positive outcomes.

Social Consciousness: The two most notable aspects of social consciousness exhibited by the sample – investigating responses to single items – was a preference for purchasing clothing products that were manufactured by companies that respect the dignity of their workers (67% of the sample), and a preference for clothing products from companies that are known to demonstrate consideration for their employees (63% of the sample). This level of social consciousness is similar to the findings reported by Částek and Červákovás (2019) that reported not only a preference for environmentally friendly products but also attention to corporate social responsibility, as well as a company's business practices. Social consciousness includes issues concerning human rights and fair wages. A previous report indicates that South African consumers who were more socially conscious about industry practices displayed stronger support and preference for sustainably produced apparel (Dickson, 2000), which concurs with the findings of this study.

From these observations, it is clear that even though South African consumers are both moderately ecologically and socially conscious of sustainable production and

consumption practices, the most salient contribution to South Africans' consciousness, is undoubtedly social consciousness. Nevertheless, the findings also indicate that more effort needs to be made in both areas to achieve visible improvement of consumers' consciousness of sustainable production and consumption practices. Literature within the context of consumer behaviour indicates that consumers if made aware of the detrimental effects of non-sustainable production and consumption practices, were more willing to consume less and to consume more sustainably to reduce the impact of their behaviour on the environment, and subsequently, their contribution towards climate change (White et al., 2019; Winterich et al., 2019; van der Wal et al., 2017). Therefore, the researcher supports Muller's (2019) view that retailers, through an intensification of marketing campaigns, should foster and cultivate consumers' consciousness of sustainable clothing production and consumption practices through constant and direct edification of consumer's, which should not only encourage sustainable consumption at the moment but also influence consumption behaviours indefinitely (Muller, 2019).

In the South African context, examples of campaigns such as the Woolworths Better Cotton Initiative, as expanded upon in Chapter 2, endeavours to incite consumers' consciousness through specific marketing campaigns and in-store signage. Through these campaigns, they indicate to consumers that by purchasing items that carry the BCI labels, they are contributing to a better environment (Muller, 2019). Zara has also launched 'Join Life', which is a private label collection of sustainable and eco-friendly products, featuring a variety of items made from environmental and animal-friendly materials. Most recently, H&M has launched its conscious range and makes available a range of environmentally friendly products. However, based on the findings of this research, more effort needs to be made in this regard. Once more, the research supports Muller's (2019) view that campaigns of this nature can be used to improve consumers' consciousness of sustainable clothing production and consumption practices, and consumers need to be provided with the opportunity to alter their purchasing behaviour and to support these initiatives (Muller, 2019).

6.3.2 Hypothesis 1.2: South African consumers' consciousness of sustainable clothing production and consumption practices differs significantly across different income segments that generally guide retailers' market segmentation.

This hypothesis is based on recent studies undertaken by Meyer (2018) and Dlamini et al. (2020), which found that socio-demographic factors have a determining influence on consumers' environmental perceptions, consciousness and attitudes. It was found that "dwelling type… employment status, and education level were the strongest predictors of consumers' environmental attitudes" (Dlamini et al., 2020, p. 12). Unfortunately, income levels that are important in terms of retailers' segmentation of consumers were not explored in Dlamini's et al. (2020) study. Therefore, based on interrelated factors, it was anticipated that South African consumers' consciousness of sustainable clothing production and consumption practices would differ significantly across different income segments that generally guide retailers' market segmentation.

A statistical comparison of the ecological consciousness of the different income groups in this study indicated that income level differences are not statistically significant. The same applied to consumers' social consciousness. Therefore, the hypothesis that proposed significant differences in South African consumers' consciousness of sustainable clothing production and consumption practices across different income segments is not supported. These results are therefore contrary to the findings of Meyer (2018), and Dlamini et al. (2020). Upon further investigation, it was found that Meyer (2018) study was restricted to the Stellenbosch area, while the research of Dlamini et al. (2020), was undertaken across Gauteng. Therefore, their studies only reflected the conduct of consumer's in particular geographic regions in South Africa, while this study recruited respondents across the country.

Even though differences among the various income groups were not statistically significant, it is worth mentioning that overall, indications are that the highest income consumers were slightly more ecologically and socially conscious compared to their lower-income counterparts. Even though this study could not produce sufficient evidence that a consumer's level of consciousness is influenced by his/her income level, this research in part found evidence that concurs with the research of Meyer (2018), that

high-income respondents are more knowledgeable, and more conscious of environmental topics.

The above findings imply that all retailers, regardless of their prevailing market segmentation practices, should, through their marketing campaigns, foster and cultivate consumers' consciousness of sustainable clothing production and consumption, rather than to assume that higher-income consumers are already conscious, and will more likely support sustainability efforts, and exhibit sustainable consumption behaviours.

6.3.3 Hypothesis 2.1: South African consumers are moderately concerned about the environment and the planet's natural resources.

This hypothesis was based on conclusive global findings, yet local opposing views on the subject of environmental concern. Minton and Rose (1997) described environmental concern as a strong view towards environmental problems such as resource quality, availability, and accessibility that involve a person's environmental attitude and behaviour. Global evidence indicates that consumers, in general, are concerned about environmental issues (Greendex, 2012; INGKA, 2018; INGKA, 2019), although local studies provide two different streams of findings of South Africans' environmental concern (Anderson et al., 2007; Hunter et al., 2010; Struwig, 2010). This hypothesis for this study was informed by more recent studies and proposed that South African consumers are moderately concerned about the environment and the planet's natural resources.

The findings of this study indicate that consumers distinguish environmental concern in terms of two, rather than a single dimension, one being *IEC* and the second as *FEC* (Immediate and Future Environmental Concern). This, in itself, is noteworthy as respondents from previous studies did not make this distinction. Furthermore, this indicates that consumers respond differently to these dimensions. The mean scores calculated for the two empirical dimensions support the hypothesis that South African consumers are moderately concerned about the environment and the planet's natural resources. The overall mean score (maximum = 5) for *IEC* was M = 4.05, which indicated that respondents were highly concerned about the immediate environment and the planet's natural resources. The mean for *FEC* was, however, lower: M = 3.64, which demonstrate moderate concern about the environment and the planet's natural

resources. A comparison of the means indicates that consumers are slightly more concerned about the immediate consequences on the environment and the planet's natural resources than about the future of the environment the planet's natural resources.

Further analysis of the data indicates that overall, 70% of the sample demonstrated concern about the environment and the planet's natural resources, while 19% of the sample were neutral, and 11% of the sample were not really concerned. Consistent with the means of the empirical dimensions, 77% of the sample seemed concerned about the immediate environment, while this decreased to 57% of the sample for future concern. The findings therefore support and corroborate global research (INGKA, 2019) that have reported that 71% of the general population are concerned about the environment, and it confirms findings from local studies (Struwig, 2010; Hunter et al., 2010) that overall, South Africans are indeed concerned about the environment and the planet's natural resources.

The two most prominent aspects of *IEC* indicated by the sample – investigating responses to single items – was a positive inclination to reduce any harm to nature and the environment (87% of the sample) and to protect the different elements in nature (82% of the sample). This is similar to the findings reported in Section 6.3.1 concerning the sample's preference for products that contributed the least pollution to the environment during manufacture, and for clothing products that are overall less harmful to the environment. This, therefore, provides potential evidence of a positive relationship between consumers' consciousness about environmental and sustainability issues, and concern about related matters.

The dimension, *FEC*, unfortunately only consisted of two items, both entailing concern related to the future of earth's resources. Only 57% of the sample viewed this issue as concerning (the least compared to other items). This finding relates to Section 6.3.1, that refers to the relatively small part of the sample who made a conscious effort to limit the use of products that are made from scarce resources. This finding also supports the former comment that more effort is needed to educate customers about the future of the environment and the scarcity of the earth's natural resources.

6.3.4 Hypothesis 2.2: South African consumers' concern about the environment and the planet's natural resources differs significantly across different income segments that generally guide retailers' market segmentation

Two streams of findings relate to the influence of socioeconomic factors on consumers' concern about the environment, one being that an individual's concern is directly associated to one's social standing (Inglehart, 1993; Struwig, 2010; Sulemana et al., 2016). The other view directly opposes these findings (Dunlup et al., 1993; Blake et al., 1997; Schultz & Zeleney; 1999). Hypothesis 2.2 is informed by the more recent studies of Sulemna et al. (2016) and proposed that differences in income levels influence consumers' concern for the environment.

The statistical test used to distinguish possible significant differences among the various income groups' *IEC*, as well as *FEC*, could not confirm statistically significant differences either. Therefore, the hypothesis that a significant difference exists in South African consumers' concern about the environment and the planet's natural resources across different income segments that generally guide retailers' market segmentation was not supported in this study. These results oppose the findings of Inglehart (1993), Struwig (2010) and Sulemana et al. (2016), which found that environmental concern was directly influenced by one's social standing and socioeconomic status. Instead, the outcome of this study supports the opposing view that environmental concern is not exclusive to the wealthy (Schultz & Zeleny, 1999) and that concern for environmental issues is not explicitly related to one's social status (Dunlup et al., 1993; Blake et al., 1997). These findings, therefore, suggest that all consumers in South Africa, from all income groups, are moderately concerned about the environment and the planet's natural resources

These findings also contradict Sulemana's et al. (2016) view that upper-middle and higher-income groups across both developed and African countries are significantly more concerned about the environment. Instead, this study suggests that lower-income groups in South Africa are equally concerned about the immediate and future consequences of their behaviour on the environment and the planet's natural resources when compared to higher-income consumer groups.

The reason for the above can be linked to findings from Brechin (1999), White and Hunter (2005) and Hunter et al. (2010), that the state of the environment where respondents are located, is a differentiating factor. Therefore, findings related to respondents' concern for the environment are context-specific. As an example, people who are directly affected by water pollution are more inclined to regard it as a problem and thus view it as a concern (Anderson et al., 2007, p. 157). Therefore, it is put forward that because lower-income groups in South Africa are more severely impacted by environmental issues such as droughts, floods and water pollution, they may eventually display stronger concern about the environment and the planet's natural resources than expected, and therefore they are equally concerned about the issue.

6.3.5 Hypothesis 3.1: South African consumers are less willing to purchase sustainably produced clothing merchandise when faced with similar affordable product alternatives.

Often, sustainably produced apparel and footwear provide the same functional and practical benefits compared to regular clothing, yet are generally more expensive (Han et al., 2017; Magnuson et al., 2017; Tezer & Bodur, 2020). As a result, consumers who are keen to support and engage in sustainability initiatives would probably have to pay a higher price for these goods, and the culmination of these extra costs could eventually cause the failure of sustainable apparel in the retail industry (Ottman et al., 2006; Han et al., 2017). Even though many research reports (Částek & Červáková, 2019; Ha-Brookshire & Norum, 2011; Khare & Sadachar, 2017; Nielson, 2018; Tezer & Bodur, 2020) indicate that consumers are willing to pay more for sustainably produced apparel, there is limited evidence to support this view in the South African context. Given that the unemployment rate in South Africa is presently 30.1% (Statistics South Africa, 2020b), while many more face financial and economic hardship in dealing with the impact of COVID-19 on the economy, the research proposed that South African consumers are less willing to purchase sustainably produced clothing merchandise when they have the option to choose similar, more affordable product alternatives

The results of the investigation indicated that the *More Sustainable Options* (M = 3.28) were less appealing than the *More Affordable Options* (M = 3.73). Consumers seemed slightly more willing to purchase the more affordable options than the more sustainable options. When indicating their likelihood to purchase, the sample chose, for eight out of

ten paired options, the more affordable option over the more sustainable option. This suggests that the price of the item seemed more critical than the sustainable nature of the item. On face value, the findings oppose the claims of the research of Částek and Červáková (2019), Ha-Brookshire and Norum, (2011), Khare and Sadachar (2017), Nielson (2018), and Tezer and Bodur (2020), that overall, consumers are willing to pay more for more sustainable products and clothing. It is, however, noteworthy that differences in the calculated means (M) were relatively small. Mostly, consumers were therefore, only slightly more willing to purchase the more affordable option over the more sustainable options. Hence, it seems as if the respondents in the sample were not very price sensitive and might have taken into consideration the sustainability of products in their evaluation of the paired products. Therefore, the researcher could not unequivocally conclude that South African consumers are less willing to purchase sustainably produced clothing merchandise when they are faced with similar affordable product alternatives, and these findings did not support the hypothesis.

There were two product pairs (out of the ten), where consumers were unequivocally more willing to purchase the more sustainable option at a higher price. Both of these options were not internally consistent (Cronbach Alpha = 0.57) within this product mix of ten paired products that indicated that they did not fit the mix well. The one pair (Option 6A and 6B) presented two identical leather jackets. Option 6A informed responded that the exterior of the jacket was made from least 100% leather and was not produced using any skins sourced from animals that were sacrificed exclusively for their skin. The jacket was produced in Germany. Option 6B informed respondents that the jacket was made from 75% cow leather & 25% polyester. The jacket was made in China. The price difference between the two options was R600, with Option 6A being the more expensive. In this case, 58% of the sample were more likely to purchase the more expensive jacket. The second issue related to Options 4A and 4B, which presented identical fancy woven blouses to respondents. The price difference between the two options was R100, with Option 4A being the more expensive. Both blouses consisted of the same material, i.e. 100% cotton; however, Option 4A was explicit regarding the contribution of the factory to the wellbeing of society. In this case, 67% of the sample were more likely to purchase the more expensive blouse. These results suggest that when choosing fancier, more

formal clothing, consumers may be more willing to pay extra for sustainably produced clothing.

Initially, for Hypothesis 3.1, the researcher only aimed to investigate consumers' willingness to purchase sustainably produced clothing over similar, more affordable options. It was later decided to investigate which characteristics are of importance to consumers when making purchasing decisions, in order to triangulate the results. Respondents had to rank the characteristics of a garment that represented a combination of extrinsic and intrinsic characteristics in order of importance. The results are indicated below, in a hierarchical order:

1. Fit
2. Quality
3. Price
4. Durability
5. Human dignity during manufacture
6. Fashionability
7. Care about the environment
8. Country of manufacture

Therefore, when consumers were presented with the various characteristics that they generally consider when purchasing clothing, quality and price (in that order) are more important than the environmental and social impact of clothing. This explains the results relating to Hypothesis 3.1. Country of manufacture, and care for the environment were the least important of the eight attributes. The implications of this are that if retailers wish to stock sustainable ranges, they cannot solely rely on this feature of the product to promote sales, as the sustainability of products is not of primary importance to consumers. Instead, they need to ensure that the fit and quality of these collections are in line with "regular" collections. Secondly, they should ensure that these ranges are relatively affordable and durable. This can be achieved by outsourcing to eastern countries that provide these goods cheaper, but in line with sustainable standards, as the country of origin of products is what concerns consumers the least. Even though there are concerns about carbon emissions linked to the transportation of goods, the pollution caused by transport is surprisingly low and estimated at only 3% of the industry's total global climate impact (Quantis, 2018). This indicates that conventional marketing related strategies that suggest that locally produced goods are superior to

offshore produced goods, based on its climate footprint, are indeed misleading. Based on these findings, retailers do not need to revert to these conventional campaigns going forward, and can therefore source competitive, sustainable ranges, which might have a higher chance of success.

6.3.6 Hypothesis 3.2: The relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives

This hypothesis is based on evidence that income is a determining factor in differentiating consumer' choices and willingness to pay for goods (Olson et al., 2016). Based on the multitude of studies that have reported a significant difference in the level of different socioeconomic groups' environmental consciousness and concern, the researcher also considered the influence of consumers' socioeconomic status on their willingness to purchase sustainably produced clothing as this implied that financially deprived consumers would need to part with scare monetary resources to care for the environment.

Statistical tests were used to compare different income groups' choice of the *More Sustainable Options* as presented in the questionnaire, and differences among the income groups were not statistically significant. Likewise, the one-way ANOVA test that compared the choices of the different income groups' choice of *More Affordable Options*, revealed that differences among the groups are not statistically significant. Therefore, the hypothesis that proposed that the relative affordability of clothing merchandise has a strong controlling influence in terms of different income segments' willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives is not supported by these findings.

It is nevertheless noteworthy that, compared to the other income groups, those in the highest income category were somewhat more willing (M = 3.43) to purchase more sustainable products and the least willing to purchase more affordable options than their counterparts. This indicates that upper-income consumers may inherently be more inclined to purchase sustainably produced clothing products than lower-income

consumers. This relates to the results reported in Section 6.3.2, namely that the highest income consumers were more socially and ecologically conscious than their lower-income counterparts. This suggests an inclination among higher-income consumers to be slightly more ecologically and socially conscious of sustainable consumption and production practices than other income groups, while their apparent stronger willingness to purchase sustainably produced clothing merchandise when faced with similar product alternatives is not statistically significant. Dickson (2000) found that consumers who are more conscious about industry practices displayed stronger support for sustainably produced apparel. Ultimately, these findings suggest that the guaranteed path to a sustainable future is to incite consumers' consciousness of sustainable clothing production and consumption practices to encourage more thoughtful spending.

6.3.7 Hypothesis 4: There is a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources.

Based on a review of existing literature, no evidence could be found to prove a relationship between consumers' consciousness of environmental issues, and their concern about it. However, certain statements by Brosdahl (2007) and Brodin (2020) guided the proposition for this research that a significant positive relationship exists between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources.

The results produced by the correlation test between *Consciousness* and *IEC* revealed a significant, positive linear relationship between consumers' consciousness of sustainable consumption practices, and *IEC*. Furthermore, a positive relationship was evident between consumers' consciousness of sustainable consumption practices and *IEC*, while consumers' consciousness explained 19% of the variance in *IEC*. Moreover, the beta coefficient for consciousness showed that consciousness makes a significant, unique contribution to the prediction of *IEC*. Similarly, a Pearson's correlation test between consumers' consciousness of sustainable consumption practices and *FEC* revealed a significant linear relationship between consumers' consciousness and *FEC*,

and a positive relationship between consumers' consciousness and *FEC* was found, where consumers' consciousness explains 9% of the variance in *FEC*. Also, the beta coefficient for consciousness indicated that consciousness makes a significant, unique contribution towards the prediction of *FEC*. Therefore, the hypothesis that proposed a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources, was supported by the findings of this research.

These results propose that even though there is a positive relationship between consumers' overall consciousness and concern, which supports Brosdahl (2010) and Brodin's (2020) findings, the relationship is stronger for *IEC* than for *FEC*. Therefore, in practice, a stronger affinity may exist for clothing products that are overall less harmful to the environment, which is not necessarily true concerning products that are made from scarce resources and which may have disastrous implications for the future, as consumers may find this hard to contemplate.

6.4 Conclusion

In light of these findings, the objectives of this study, which was to investigate South African consumers' consciousness of sustainable clothing production and consumption practices, their concern about the environment and the planet's natural resources and their willingness to purchase sustainably produced apparel, were achieved. Figure 6.1 presents these findings visually.

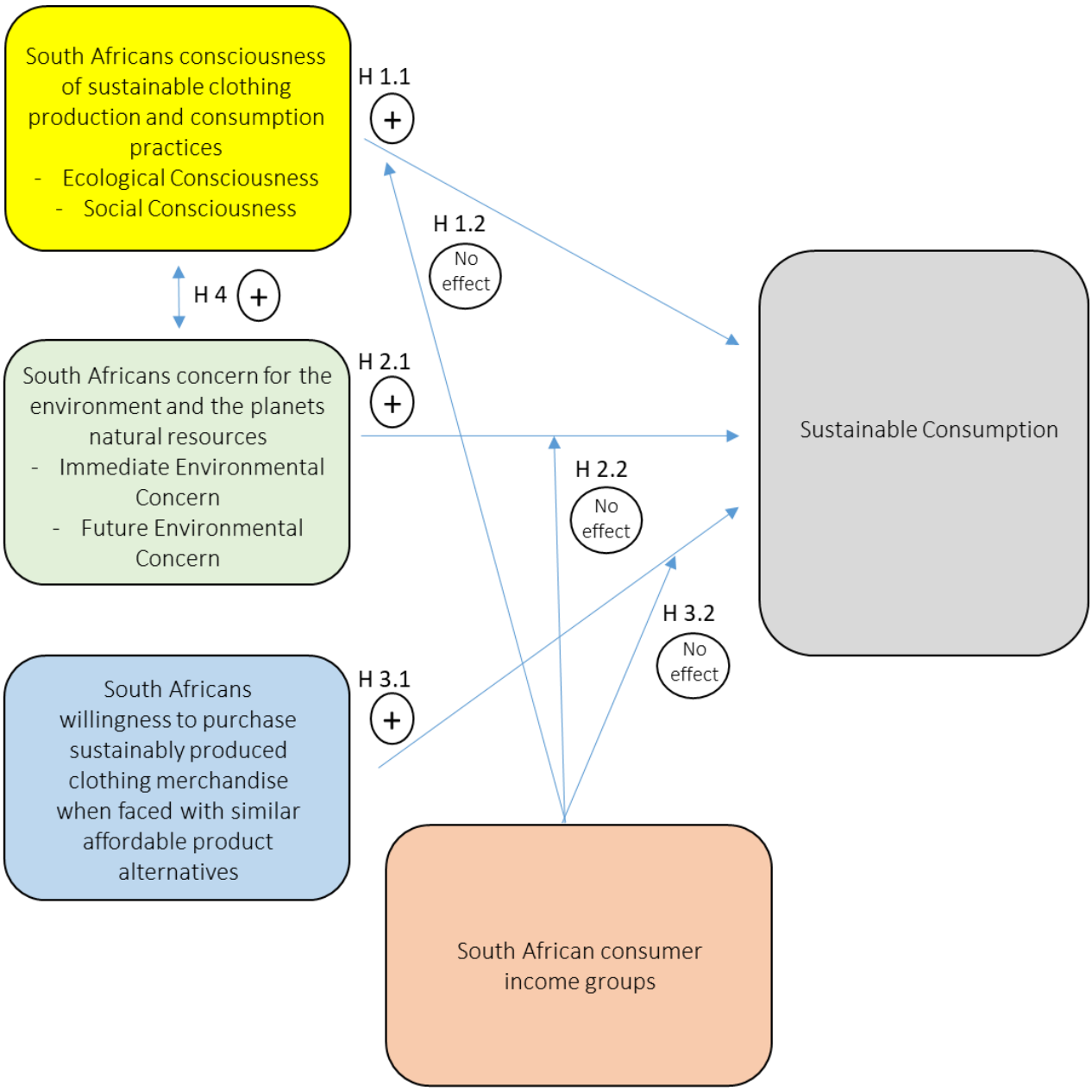

Figure 6.1: Research findings (Source: Researcher's own).

Concerning South African consumers' consciousness of sustainable production and consumption practices (H1.1), this research concluded that South African consumers are moderately conscious of sustainable clothing production and consumption practices. However, South African consumers' consciousness of sustainable clothing production and consumption practices (H1.2) do not differ significantly across the different income segments, which is a very useful finding for retailers who wish to stock sustainably

produced clothing merchandise. Concerning South African consumers' concern about the environment and the planet's natural resources, H2.1 is supported, in that South African consumers seem moderately concerned about the environment and the planet's natural resources, although the hypothesis (H2.2) was not supported that consumers' income level relates to their concern about the environment and the planet's natural resources. Furthermore, South African consumers' willingness to purchase sustainably produced clothing merchandise when they are faced with similar more affordable product alternatives (H3.1), is not supported in this research, also indicating that the relative affordability of clothing merchandise does not control different income segments' willingness to purchase sustainably produced clothing merchandise (H3.2).

It was, however, found that for smart, more formal clothing, consumers across all income levels seem more willing to pay more. A noteworthy finding concerns H4, where a positive relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources was confirmed. Retailers should, therefore take note that efforts to inform and educate consumers would probably encourage changes in their product choices. When prompted to rank the importance of clothing product characteristics, certain intrinsic factors were found to be more important (quality, and durability) with price being the third most important criterion, and sustainability aspects and country of origin lower on consumers' priority list. This confirmed the preceding findings that consumers are generally only moderately concerned about environmental and sustainability issues when purchasing clothing. A pertinent outcome of the study is that in South Africa, income level does not seem to influence consumers' consciousness concern about the sustainability of clothing production practices. This means that all consumer groups are more or less equally aware, although only moderately so. Also, income level apparently does not influence consumers' willingness to purchase sustainably produced clothing that is generally more expensive.

The research, therefore, provides valuable guidelines for retail for the future. These are discussed in Chapter 7

Chapter 7: Conclusion

7.1 Introduction

This research was inspired by an exceeding number of global calls for action to limit global warming and combat climate change (IPCC, 2018). This chapter highlights the principal findings of the research and draws attention to its theoretical implications. Its implications for business and relevant stakeholders are defined, and valuable empirical evidence is provided for retail clothing buyers concerning consumer consciousness of sustainable production and consumption practices, their concern for such and the viability to offer sustainably produced apparel in all stores notwithstanding the approximate income level of their target market. Lastly, the research limitations are discussed, and recommendations for future research are provided.

7.2 Principal Findings and Theoretical Implications

The findings of the study are presented per topic of investigation, attending to the research questions that guided the research.

7.2.1 Consumers' Consciousness of Sustainable Clothing Practices

The research concludes that South African consumers are moderately ecologically and socially conscious of sustainable clothing production and consumption practices. This supports the research of Neville (2010) and Meyers (2019) that were conducted almost a decade apart. The results also showed that consumers are slightly more socially conscious of sustainable production and consumption practices than ecologically conscious. Respondents, therefore, seemed more conscious of social issues surrounding the clothing and textiles industries and could benefit from being informed about ecological issues as that may create a stronger awareness of what they should pay attention to when purchasing clothing merchandise. On average, consumers are presently only moderately conscious of the contaminating and toxic nature of clothing production and consumption practices. It was particularly distressing that only a third of the sample realised the impact of clothing production and consumption practices on the depletion of the earth's scarce natural resources. This should be a significant concern for South Africans, as we generally suffer from low rainfall and drought conditions, while the apparel industry further contributes to the deterioration of the environment due to its

reliance on non-reliable fossil fuels used in the production of various textiles (Muller, 2019). The adoption of more sustainable production and consumption practices in the clothing industry should, therefore, be a top priority. It was found that more effort is needed to make consumers ecologically and socially aware, and conscious of the positive outcomes of sustainable production and consumption practices to encourage them to adapt their behaviour accordingly. This will reduce the impact of their behaviour on the environment, and subsequently, their contribution towards climate change. This concurs with White et al. (2019), Winterich et al. (2019) and van der Wal's et al. (2017) findings. By ensuring that consumers are better informed, they will be better equipped to rationalise their purchase decisions. According to RCT, consumers take into consideration all the options (that they are aware of). This implies that lack of knowledge will jeopardise their ability to make informed purchase decisions.

A comparison of the *Ecological* and *Social Consciousness* of the different reconfigured income groups indicated that, overall, consumers in the highest income level group were more ecologically and socially conscious of sustainable consumption and production practices than lower-income groups. Differences among the different income levels were, however, not statistically significant – a result that contradicts the findings of Meyers (2019) and Dlamini et al. (2020). They reported that sociodemographic factors (that include income) have a determining influence on consumers' environmental perceptions, consciousness and attitudes. The findings of this study, therefore, indicate that one cannot assume that higher-income consumers are significantly more conscious than lower-income consumers and that they may be more likely to support sustainability efforts and participate in sustainable consumption behaviours.

7.2.2 South African Consumers' Concern about Sustainable Clothing Practices

The findings reveal that South African consumers are moderately concerned about the environment and the planet's natural resources, which concurs with reports by Anderson et al. (2007), Hunter et al., (2010) and Struwig (2010). Interestingly, the consumers in this study distinguished issues concerning sustainable practices in terms of two dimensions, namely *Immediate Environmental Concern (IEC)*, and *Future*

Environmental Concern (FEC), and indicated a stronger concern about the immediate consequences than for future consequences. This is a noteworthy finding, as respondents from previous studies did not make this distinction. Another worthy finding is evidence of a positive relationship between consumers' consciousness and their concern about sustainability issues as this indicates that increased awareness (that could be achieved through campaigns) should increase consumers' concern that could lead to changed behaviour. According to RCT, a consumer takes into consideration all information to choose the best outcome. Lack of information therefore hinders consumers' potential to make informed decisions.

A comparison of the different income groups' concern about sustainability issues could not confirm any statistically significant differences for either of the dimensions of the phenomenon. These results support the view that environmental concern is not exclusive to the wealthy (Schultz & Zeleny, 1999) and that that concern about environmental issues is not explicitly connected to one's social status (Dunlup et al., 1993; Blake et al., 1997). The findings, however, contradict another study that found that upper-middle and higher-income groups are significantly more concerned about the environment compared to lower-income groups (Sulemana et al., 2016). Instead, this study found that lower-income groups in South Africa are equally concerned about the immediate and future consequences of their behaviour on the planet's natural resources.

7.2.3 Willingness to Purchase Sustainably Produced Merchandise

The findings could not unequivocally conclude that South African consumers are less willing to purchase sustainably produced clothing merchandise (that are generally more expensive) when they are faced with similar affordable product alternatives. This conclusion is based on small differences in consumers' willingness to purchase more affordable, compared to more sustainable clothing. Interestingly, with two garment choices (out of the ten pairs), where the garments were fancier and more formal, consumers were more willing to purchase the more sustainable options that were more expensive. It, therefore, seems as if consumers take into account the type of clothing purchased, and may be willing to pay more expensive clothes for special occasions.

7.2.4 The Relevance of Price Compared to Other Product Characteristics

At the purchase stage, consumers generally consider various product characteristics (Baier et al., 2020) and not only the two factors that this research was interested in, namely sustainability and affordability. When consumers were given the task to rank various product characteristics that included a combination of extrinsic factors (such as price, quality indicators, country of manufacture) as well as intrinsic factors (such as durability, fit, comfort), the three characteristics that were considered most important overall were fit, quality and price (in that order). They were therefore ranked more important than environmental and social impact, or country of origin. This exercise hence confirmed the previous findings, namely that consumers are conscious, and are aware of sustainability issues, but only moderately so, and that these characteristics do not take precedence when purchasing clothing.

A comparison of the likelihood that different income groups would purchase the more sustainable versus, the more affordable option when given ten pairs of clothing items to choose from, could not detect significant differences among the choices of the income groups. Even though not statistically significant, the highest income group seemed slightly more inclined to purchase sustainably produced products, and were slightly more ecologically and socially conscious of sustainable production and consumption practices. These findings support Dickson's (2000) finding that consumers who are more conscious about industry practices will display stronger support for sustainably produced apparel. Furthermore, the findings suggest that the guaranteed path to sustainable purchase and consumption practices is to incite consumers' consciousness of sustainable clothing production and consumption practices, to encourage more thoughtful spending.

7.2.5 The Relationship Between Consciousness and Concern

Lastly, it was determined that consumers' consciousness about sustainable production and consumption practices makes a significant contribution to the prediction of consumers' concern and that a positive relationship exists between consumers' consciousness of sustainable clothing production and consumption practices and their concern for the environment and the planet's natural resources. These findings correspond with the finding

that a stronger connection exists between those concerned for the environment and a conscious choice to purchase products that were overall less harmful to the environment.

7.3 Implications for Business and Relevant Stakeholders

The findings indicate that South African consumers are only moderately conscious and concerned about environmental issues, and specifically, that they are less concerned about the future implications of their clothing consumption behaviour. This reveals a need for concerted effort to inform and educate consumers as many prominent retailers have already begun to do. According to RCT, a consumer will be better able to make an informed purchase decision if the consumer possesses all the information. Without this, the consumer can only "weigh" whatever is to be "weighed" and clearly, consumers are not well informed. In order to encourage more responsible product choices, that entails a focus on sustainably produced clothing, consumers should be better informed, particularly because the study has found a direct linear relationship between consumers' consciousness and their concern about the environment. It is common knowledge that for multiple reasons, sustainably produced clothing is usually more expensive. This study could not indisputably confirm that consumers are discouraged from choosing sustainably produced merchandise that is more expensive. Retailers can therefore strategise to incorporate larger ranges of sustainably produced clothing in their stores, knowing that consumers, irrespective of the income category, are not unwilling to pay for it. Probably the biggest challenge at the time is to boost consumers' consciousness and awareness – something that several retailers have already put their minds to.

Consumer behaviour literature indicates that consumers, if made aware of the detrimental effects of non-sustainable production and consumption, were more willing to consume less and to consume more sustainably to reduce the impact of their behaviour on the environment, and subsequently, their contribution towards climate change (White et al., 2019; Winterich et al., 2019; van der Wal et al., 2017). Therefore, the researcher supports Muller's (2019) view that retailers, through an intensification of marketing campaigns, should foster and cultivate consumers' consciousness of sustainable clothing production and consumption practices and concern for the environment. This can be achieved through constant and direct edification of consumer's, which should not only encourage sustainable consumption at the moment

but also influence consumption behaviours indefinitely. Retailers should not assume that sustainably produced clothing is exclusive to and destined to end up in the wardrobes of higher-income consumers. It is not correct to assume that higher-income consumers, or the financially privileged, are more conscious and are more willing to pay for sustainably produced clothing because they can afford it.

With regards to the importance of product characteristics when making a purchasing decision, the implication of these findings is that if retailers wish to stock sustainable ranges, they cannot solely rely on this feature to increase sales. This study has shown that consumers' regard for cues concerning the sustainability of garments, and the country of manufacture are not the most important considerations. Retailers need to ensure that the fit and quality of their sustainably sourced ranges are in line with, and comparable to regular collections. Secondly, they should ensure that these ranges are relatively affordable and durable. This can be achieved by outsourcing to countries to eastern countries that provide these goods cheaper but in line with sustainable standards, as consumers are least concerned with this factor. Even though there are concerns with regards to carbon emissions linked to the transportation of goods, the pollution caused by transport is surprisingly low and estimated at only 3% of the industry's total global climate impact (Quantis, 2018). This indicates that conventional marketing related strategies that suggest that locally produced goods are superior to offshore produced goods, based on its climate footprint, are indeed misleading and based on these findings, retailers do not need to revert to these conventional campaigns going forward.

7.4 Research Limitations

The sample was not representative in terms of the demographics of the country, and within the sample, the gender, age and income distributions were not representative of the general South African population. It was, therefore, subject to bias based on femininity, youth and wealth. Accessing respondents from the lowest income groups proved to be difficult, due to language barriers and accessibility of respondents as they might not be have been able to access the questionnaires electronically and might not have been able to complete the survey independently. Therefore, the researcher only attracted respondents that had access to electronic devices and were able to complete

the survey independently. The failure to obtain a representative sample was noted in Chapter 4, based on the limitations of non-probability sampling which often yields a sub-standard representation of the population (Saunders & Lewis, 2018, p. 141).

As the study was cross-sectional in nature; it only provided a snapshot at a point in time, which is essential to mention during the COVID-19 pandemic when the economic pressure of the current situation was enforced on the majority of the population and may have increased their price sensitivity more than what it would have had under other circumstances.

7.5 Recommendations for Future Research

The findings of this study focused on certain constructs that are associated with sustainable consumption, namely consumers' consciousness, consumers' concern and consumers' willingness to purchase sustainably produced apparel. Consciousness was measured using Roberts' and Bacon's (1997) ecologically conscious consumer behaviour scale (ECCB) and socially conscious consumer behaviour scale (SCCB). Furthermore, future research into this topic could include additional items to expand the dimension of *Future Environmental Concern*, which only contained two items when this phenomenon parted into the two dimensions. In this study, it became clear that South African consumers view *Environmental Concern* in terms of two dimensions, namely: *Immediate Environmental Concern* and *Future Environmental Concern*. More research is needed in order to ensure the validity of these findings.

Lastly, even though this research could not unequivocally conclude that South African consumers are less willing to purchase sustainably produced clothing merchandise when they are faced with similar affordable product alternatives, and that price is only ranked as third important to consumers when making purchasing decisions, this does not indicate that sensitivity to price is non-existent. Retailers should thus remain cautious. Van Westendorp's Price Sensitivity Meter (1976) is "based on the assumptions that reasonable prices exist for consumers in every category and each perceived level of quality within a category; consumer price decisions are made by balancing value against price; and there is an upper and lower bound to the price a consumer will pay for a product or service" (1976: 2). This confirms the assumption of RCT, namely that consumers will take into consideration all product criteria; if the price is inflated,

consumers might still reject a product. Future research should focus the sensitivity to the price per product category as this study found that consumers were more willing to pay more for fancier, more formal clothes. This can be used to indicate to retailers how to price their goods effectively and which product categories ultimately have a better chance of success in the near future.

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Appendix A: Questionnaire

South African consumers' prioritisation of clothing attributes during the purchase process

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research on factors that influence consumers' clothing choices. Your contribution will be very useful to complete my research. Please follow the easy-to-complete questions that will include various factors such as price and production method and indicate your most likely choices for every question in the questionnaire to help us better understand consumers' choices in retail stores. .

This survey will take approximately 10-15 minutes to complete. Your participation is highly appreciated but it remains voluntary, and you can withdraw at any time if you wish to do so without penalty. Your participation is also anonymous so that your responses can not be traced back to you. Only aggregated data of all the respondents who participate in the study will be reported and therefore you should not feel uncomfortable about any of your personal responses. By completing the survey, you indicate that you have voluntarily participated in this research.

If you have any concerns or questions, please feel free to contact my supervisor or me. Our details are provided below.

Researcher name: Zainub Moolla Email: 19384956@mygibs.co.za

Research Supervisor: Professor Alet Erasmus Email: erasmusa@gibs.co.za

Screening Question:

Q1: Please confirm that you are 18 years or older?

□ Yes
□ No

Q2: Please confirm that you have made at least one clothing purchase in the last 12 months?

□ Yes
□ No

If you have answered Yes to both of the above questions, please proceed with answering the survey.

If you have answered No to any of the above questions, you unfortunately do not qualify to participate, but your interest in the survey is highly appreciated.

Section A: Product choices

Imagine that you have to make clothing purchases for yourself or for someone else. Please consider **each pair of offerings** presented below - even if you do not necessarily like the style. I am only interested in your consideration of the product, based on the available label information.

Therefore, please consider **every one of the 10 paired items** and then rate the likelihood and your willingness to purchase **EVERY ONE of the two items that are paired** on the relevant scale below them, by marking your answer for each option on the relevant scale.

Option 1A

Option 1B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 1A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 1B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 2A

Option 2B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 2A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 2B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 3A

Option 3B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 3A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 3B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 4A

Option 4B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 4A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 4B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 5A

Option 5B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 5A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 5B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 6A

Option 6B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 6A

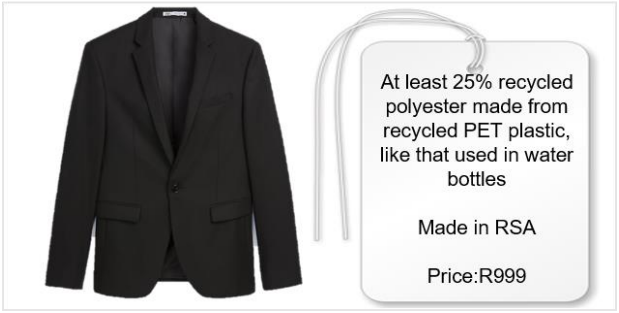
Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 6B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 7A

Option 7B



Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 7A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 7B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 8A

Option 8B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 8A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 8B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 9A

Option 9B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 9A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 9B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 10A

Option 10B

Please rate **every one of the two** options on the scales below to indicate your likelihood to purchase.

Option 10A

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Option 10B

Left: Very Unlikely	1	2	3	4	5	Right: Very Likely

Section B: Product Characteristics

After studying the sets of labels above, consider the 8 characteristics of a garment that are listed below, then **rate the level of importance** for each statement on the scale below.

Please respond to EVERY statement by selecting the level of importance when considering to purchase a clothing product	**Not at all important**	**Low Importance**	**Neutral**	**Important**	**Very Important**
Example: 1. The label on the garment	1	2	3	4	5 X
The quality of the garment	1	2	3	4	5
The fashionability of the garment	1	2	3	4	5
The durability of the garment	1	2	3	4	5
The fit of the garment	1	2	3	4	5
Care about the environment	1	2	3	4	5
Human dignity during manufacture	1	2	3	4	5
Price	1	2	3	4	5
Country of Manufacture	1	2	3	4	5

Section C: Ecological and Social Consciousness

To what extent do you agree with each of the following statements?	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Example: I would rather do my own shopping than to ask someone else to do it for me	1	2	3	4	5 X
I normally make a conscious effort to limit the use of products that are made from scarce resources	1	2	3	4	5
I avoid products that are manufactured by companies that are involved in labour disputes	1	2	3	4	5
I have chosen to purchase certain products because they cause less damage to the environment	1	2	3	4	5
I tend to associate cheaper clothing products with undesirable working conditions of factory workers	1	2	3	4	5
When there is a choice of products, I would rather choose the one that causes the least amount of pollution	1	2	3	4	5
I avoid purchasing products that are harmful to the environment	1	2	3	4	5
I will buy clothing products from companies that are known to demonstrate consideration for their employees	1	2	3	4	5
I try to purchase clothing products from companies that care about the well-being of the environment	1	2	3	4	5
I have switched products in favour of others that are more environmentally friendly	1	2	3	4	5
I have purchased certain products because they cause less pollution	1	2	3	4	5
I make effort to support clothing manufacturers and clothing companies that contribute to the well-being of society	1	2	3	4	5
When I have a choice between two similar products, I purchase the one that is less harmful to other people and the environment	1	2	3	4	5
When shopping, I make a conscious effort to buy products that are safer for the environment	1	2	3	4	5

To me, it is important that the clothing products that I purchase are manufactured by companies that respect the dignity of their workers	1	2	3	4	5

Section D: Environmental Concern

To what extent do you agree with the following statements?	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Example: I would rather do my own shopping than to ask someone else to do it for me	1	2	3	4	5 X
The balance of the different elements in nature should be protected because it is delicate	1	2	3	4	5
People should not interfere with nature, because it can produce disastrous consequences	1	2	3	4	5
As human beings, we should live in harmony with nature to limit harming the environment	1	2	3	4	5
We are approaching the limit on the number of people that the earth can support	1	2	3	4	5
The earth is like a spaceship with only limited room and resources	1	2	3	4	5
Humans should not modify the natural environment to meet their needs	1	2	3	4	5

Section E: Demographic Characteristics

Please tick the relevant box

Gender

□ Male
□ Female
□ Prefer not to disclose

Age

□ 18 - 29
□ 30 - 39
□ 40 – 49
□ 50 - 59
□ 60 or older

Monthly Net Household Income

□ Up to R4 999
□ R5 000 - R9 999
□ R10 000 - R19 999
□ R20 000 – R39 999
□ R40 000 - R49 999
□ R50 000 - R59 999
□ R60 000 +

Thank you for your time!

(Source: Researcher's own)

Appendix B: Code Book

Variable Values		
Value	**Rank**	**Lable**
Screening Questions	1	Yes
	2	No
Gender	1	Male
	2	Female
	3	Prefer not to disclose
Age	1	18-29
	2	30-39
	3	40-49
	4	50-59
	5	60 or older
Monthly Net Household Income	1	Up to R4999
	2	R5 000-R9 999
	3	R10 000 - R19 999
	4	R20 000 – R39 999
	5	R40 000 - R49 999
	6	R50 000 - R59 999
	7	R60 000 +
Product Choices	1	Very Unlikely
	2	Somewhat Unlikely
	3	Neither Likely or Unlikely
	4	Somewhat Likely
	5	Very Likely
Product Characteristics	1	Not al all important
	2	Low Importance
	3	Neutral
	4	Important
	5	Very Important
Egological and Social Conciousness	1	Strongly Disagree
	2	Disagree
	3	Neutral
	4	Agree
	5	Strongly Agree
Envioronmental Concern	1	Strongly Disagree
	2	Disagree
	3	Neutral
	4	Agree
	5	Strongly Agree

Variable Information				
Variable	**Sub Variable**	**Position**	**Label**	**Measurement Lev**
Screening Question		Q1	Q1. Please confirm that you are 18 years or older?	Nominal
Screening Question		Q2	Q2. Please confirm that you have made at least one clothing purchase in the last 12 months?	Nominal
Product Choices	Sustainable	A1.1	Option 1A	Interval (Scale)
Product Choices	Non-Sunstainable	A1.2	Option 1B	Interval (Scale)
Product Choices	Non-Sunstainable	A2.1	Option 2A	Interval (Scale)
Product Choices	Sustainable	A2.2	Option 2B	Interval (Scale)
Product Choices	Non-Sunstainable	A3.1	Option 3A	Interval (Scale)
Product Choices	Sustainable	A3.2	Option 3B	Interval (Scale)
Product Choices	Sustainable	A4.1	Option 4A	Interval (Scale)
Product Choices	Non-Sunstainable	A4.2	Option 4B	Interval (Scale)
Product Choices	Sustainable	A5.1	Option 5A	Interval (Scale)
Product Choices	Non-Sunstainable	A5.2	Option 5B	Interval (Scale)
Product Choices	Sustainable	A6.1	Option 6A	Interval (Scale)
Product Choices	Non-Sunstainable	A6.2	Option 6B	Interval (Scale)
Product Choices	Non-Sunstainable	A7.1	Option 7A	Interval (Scale)
Product Choices	Sustainable	A7.2	Option 7B	Interval (Scale)
Product Choices	Non-Sunstainable	A8.1	Option 8A	Interval (Scale)
Product Choices	Sustainable	A8.2	Option 8B	Interval (Scale)
Product Choices	Sustainable	A9.1	Option 9A	Interval (Scale)
Product Choices	Non-Sunstainable	A9.2	Option 9B	Interval (Scale)
Product Choices	Sustainable	A10.1	Option 10A	Interval (Scale)
Product Choices	Non-Sunstainable	A10.2	Option 10B	Interval (Scale)
Product Characteristics		B1	The quality of the garment	Interval (Scale)
Product Characteristics		B2	The fashionability of the garment	Interval (Scale)
Product Characteristics		B3	The durability of the garment	Interval (Scale)
Product Characteristics		B4	The fit of the garment	Interval (Scale)
Product Characteristics		B5	Care about the environment	Interval (Scale)
Product Characteristics		B6	Human dignity during manufacture	Interval (Scale)
Product Characteristics		B7	Price	Interval (Scale)
Product Characteristics		B8	Country of Manufacture	Interval (Scale)
Conciousness	Ecological Conciousness	C1	I normally make a conscious effort to limit the use of products that are made from scarce resources	Interval (Scale)
Conciousness	Social Conciousness	C2	I avoid products that are manufactured by companies that are involved in labour disputes	Interval (Scale)
Conciousness	Ecological Conciousness	C3	I have chosen to purchase certain products because they cause less damage to the environment	Interval (Scale)
Conciousness	Social Conciousness	C4	I tend to associate cheaper clothing products with undesirable working conditions of factory workers	Interval (Scale)
Conciousness	Ecological Conciousness	C5	When there is a choice of products, I would rather choose the one that causes the least amount of pollution	Interval (Scale)
Conciousness	Ecological Conciousness	C6	I avoid purchasing products that are harmful to the environment	Interval (Scale)
Conciousness	Social Conciousness	C7	I will buy clothing products from companies that are known to demonstrate consideration for their employees	Interval (Scale)
Conciousness	Social Conciousness	C8	I try to purchase clothing products from companies that care about the well-being of the environment	Interval (Scale)
Conciousness	Ecological Conciousness	C9	I have switched products in favour of others that are more environmentally friendly	Interval (Scale)
Conciousness	Ecological Conciousness	C10	I have purchased certain products because they cause less pollution	Interval (Scale)
Conciousness	Social Conciousness	C11	I make effort to support clothing manufacturers and clothing companies that contribute to the well-being of society	Interval (Scale)
Conciousness	Ecological Conciousness	C12	When I have a choice between two similar products, I purchase the one that is less harmful to other people and the environment	Interval (Scale)
Conciousness	Ecological Conciousness	C13	When shopping, I make a conscious effort to buy products that are safer for the environment	Interval (Scale)
Conciousness	Social Conciousness	C14	To me, it is important that the clothing products that I purchase are manufactured by companies that respect the dignity of their workers	Interval (Scale)
Concern		D1	The balance of the different elements in nature should be protected because it is delicate	Interval (Scale)
Concern		D2	People should not interfere with nature, because it can produce disastrous consequences	Interval (Scale)
Concern		D3	As human beings, we should live in harmony with nature to limit harming the environment	Interval (Scale)
Concern		D4	We are approaching the limit on the number of people that the earth can support	Interval (Scale)
Concern		D5	The earth is like a spaceship with only limited room and resources	Interval (Scale)
Concern		D6	Humans should not modify the natural environment to meet their needs	Interval (Scale)
Gender		E1	Gender	Categorical Data
Age		E2	Age Group	Categorical Data
Income		E3	Monthly Net Household Income	Categorical Data

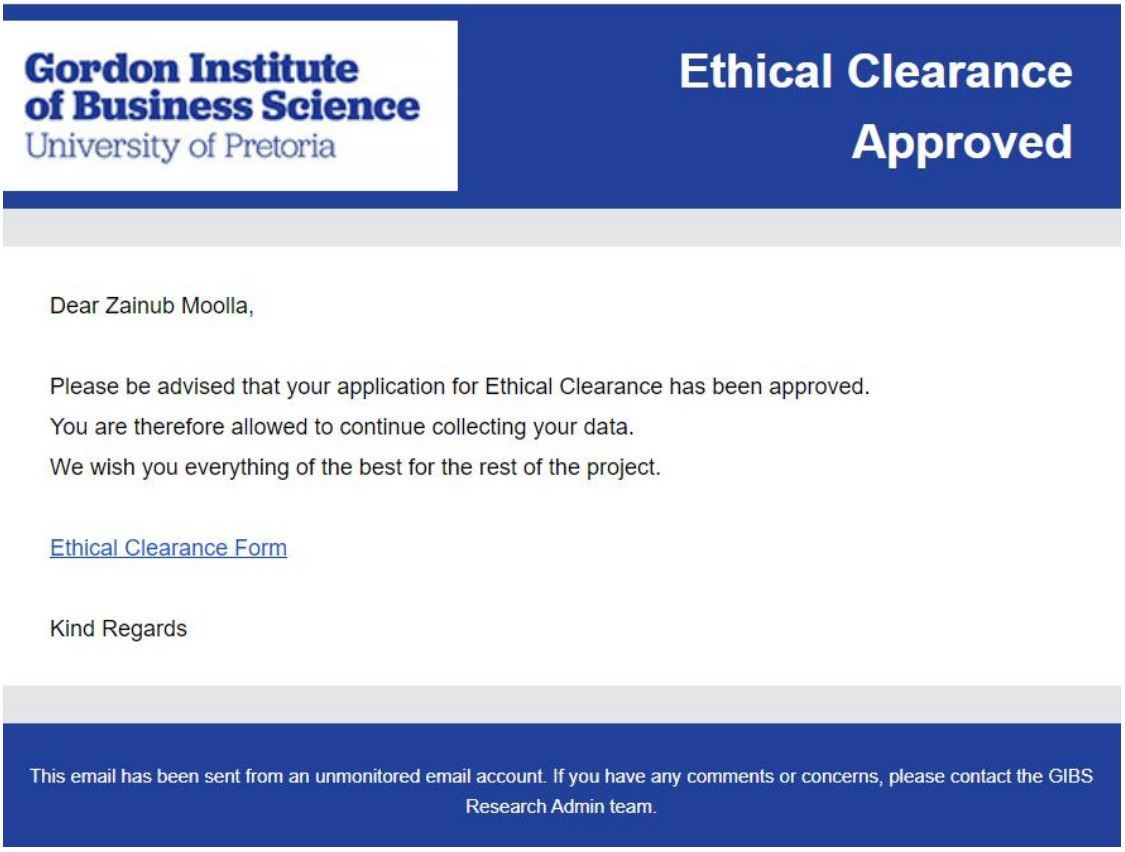
(Source: Researcher's own)

Appendix C: Consistency Matrix

Research Questions	Sections in the Literature Review	Data Collection Tools	Analysis Technique
How conscious are South African consumers in general of sustainable clothing production and consumption practices?	2.5 The Relevance of Consumers' Consciousness	Questions adapted from Roberts and Bacon's (1997) ecologically conscious consumer behaviour and socially conscious consumer behaviour scale, utilising five increment Likert-type measurements. The scale anchors ranged from strongly agree (5), to strongly disagree (1).	EFA analysis, measurement of scales internal consistency and a one-way ANOVA to test for possible significant differences in income groups.
How concerned are South African consumers in general about the environment and the planet's natural resources?	2.6 The Relevance of Consumers' Environmental Concern	Questions adapted from Dunlap, Van Liere, Mertig, and Jones (2000) revised NEP scale (New Environmental Paradigm), presenting five increment Likert-type scales ranging from strongly agree (5), to strongly disagree (1).	EFA analysis, measurement of scales internal consistency and a one-way ANOVA to test for possible significant differences in income groups.
How does the price of sustainably produced clothing merchandise influence South African consumers' willingness to purchase when they are faced with similar affordable product alternatives?	2.7 Consumers' Willingness to Purchase and 2.8 Product Characteristics	Respondents were shown a series of examples of sustainably produced products and more affordable products with visible labels that inter alia, indicated price as a key characteristic. These images were placed in pairs, side by side on the questionnaire, and respondents were asked to indicate their preference to purchase both items on the five-point Likert-type scale. The scale anchors that were employed were very likely (5), likely, neutral, unlikely and very unlikely (1).	EFA analysis, measurement of scales internal consistency and a one-way ANOVA to test for possible significant differences in income groups.
What is the relationship between consumers' consciousness of sustainable clothing production and consumption practices, and their concern for the environment and the planet's natural resources?	2.5 The Relevance of Consumers' Consciousness and 2.6 The Relevance of Consumers' Environmental Concern		Multiple Regression to determine the relationship between consciousness and concern.

(Source: Researcher's own)

Appendix D: Ethics Approval



Gordon Institute of Business Science
University of Pretoria

Ethical Clearance Approved

Dear Zainub Moolla,

Please be advised that your application for Ethical Clearance has been approved.
You are therefore allowed to continue collecting your data.
We wish you everything of the best for the rest of the project.

Ethical Clearance Form

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.

(Source: Masters Research 2020)

Appendix E: Additional Information – Product Choices

Table 8.1: Product Choices: Rotated factor matrix.

Rotated Factor Matrix				
	Factor			
	1	2	3	4
A8.2	**0,71**	0,04	0,01	0,18
A3.2	**0,69**	-0,07	0,02	0,26
A4.1	**0,68**	0,17	-0,33	0,07
A7.2	**0,67**	0,06	0,06	0,02
A9.1	**0,67**	0,09	0,22	-0,25
A2.2	**0,64**	-0,07	0,05	0,23
A5.1	**0,62**	0,16	-0,01	-0,14
A10.1	**0,56**	0,13	-0,08	-0,29
A6.1	**0,53**	0,21	-0,27	-0,12
A1.1	**0,49**	0,10	0,08	0,05
A7.1	0,09	**0,70**	0,05	-0,17
A8.1	0,10	**0,63**	0,03	0,06
A2.1	0,01	**0,62**	0,01	-0,07
A3.1	0,09	**0,54**	0,14	-0,09
A9.2	0,07	**0,53**	0,18	0,23
A5.2	0,08	**0,50**	0,15	0,14
A1.2	0,06	**0,40**	0,18	0,21
A4.2	-0,02	0,30	**0,68**	0,12
A6.2	-0,01	0,30	**0,51**	0,02
A10.2	0,18	0,44	0,29	**0,51**
Extraction Method: Principal Axis Factoring.				
Rotation Method: Varimax with Kaiser Normalization. a				
a. Rotation converged in 6 iterations.				

(Source: SPSS output)

Table 8.2: Tests for normality – Product Choices.

Test of Nomality												
	More Sustainable Options						More Affordable Options					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk			Kolmogorov-Smirnov[a]			Shapiro-Wilk		
rIncome Groups	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.
Low-Income Consumers	0,08	58	0,200				0,15	58	0,002			
Low-Middle Income Consumers				0,98	43	0,501				0,94	43	0,034
High-Middle Income Consumers	0,11	76	0,035				0,08	76	0,200			
Lower-High Income Consumers	0,11	69	0,057				0,13	69	0,004			
Upper-High Income Consumers	0,12	79	0,006				0,08	79	0,200			

(Source: SPSS output)

Table 8.3: Test of homogeneity of variances – Product Choices

Test of Homogeneity of Variances								
	More Sustainable Options				More Affordable Options			
	Levene Statistic	df1	df2	Sig.	Levene Statistic	df1	df2	Sig.
Based on Mean	1,38	4	320	0,242	2,30	4	320	0,058
Based on Median	1,29	4	320	0,275	2,26	4	320	0,062
Based on Median and with adjusted df	1,29	4	311	0,275	2,26	4	287	0,062
Based on trimmed mean	1,38	4	320	0,241	2,30	4	320	0,059

(Source: SPSS output)

Appendix F: Additional Information – Environmental Concern

Table 8.4: Environmental Concern: Rotated factor matrix

Rotated Factor Matrix		
	Factor	
	1	2
D3	**0,88**	0,20
D2	**0,85**	0,18
D1	**0,60**	0,22
D6	**0,59**	0,38
D5	0,24	**0,85**
D4	0,24	**0,85**
Extraction Method: Principal Axis Factoring.		
Rotation Method: Varimax with Kaiser Normalization. a		
a. Rotation converged in 3 iterations.		

(Source: SPSS output)

Table 8.5: Tests for normality – IEC and FEC.

Test of Nomality												
	Immediate Environmental Concern						Future Environmental Concern					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk			Kolmogorov-Smirnov[a]			Shapiro-Wilk		
rIncome Groups	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.
Low-Income Consumers	0,16	58	0,001				0,19	58	0,000			
Low-Middle Income Consumers				0,84	43	0,000				0,89	43	0,001
High-Middle Income Consumers	0,18	76	0,000				0,14	76	0,000			
Lower-High Income Consumers	0,17	69	0,000				0,12	69	0,016			
Upper-High Income Consumers	0,16	79	0,000				0,19	79	0,000			

(Source: SPSS output)

Table 8.6: Test of homogeneity of variances – IEC and FEC.

Test of Homogeneity of Variances								
	Immediate Environmental Concern				Future Environmental Concern			
	Levene Statistic	df1	df2	Sig.	Levene Statistic	df1	df2	Sig.
Based on Mean	1,57	4	320	0,181	0,84	4	320	0,499
Based on Median	1,27	4	320	0,283	1,00	4	320	0,407
Based on Median and with adjusted df	1,27	4	283	0,283	1,00	4	310	0,407
Based on trimmed mean	1,23	4	320	0,298	0,86	4	320	0,488

(Source: SPSS output)

Appendix G: Additional Information – Ecological and Social Consciousness

Table 8.7: Tests for normality – Ecological and Social Consciousness.

Test of Nomality												
	Ecological Consciousness						Social Consciousness					
	Kolmogorov-Smirnov[a]			Shapiro-Wilk			Kolmogorov-Smirnov[a]			Shapiro-Wilk		
rIncome Group	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.	Statistic	df	Sig.
Low-Income Consumers	0,12	58	0,052				0,12	58	0,039			
Low-Middle Income Consumers				0,97	43	0,462				0,98	43	0,556
High-Middle Income Consumers	0,08	76	0,200				0,07	76	0,200			
Lower-High Income Consumers	0,09	69	0,200				0,11	69	0,053			
Upper-High Income Consumers	0,12	79	0,011				0,11	79	0,020			

(Source: SPSS output)

Table 8.8: Test of homogeneity of variances – Ecological and Social Consciousness.

Test of Homogeneity of Variances								
	Ecological Consciousness				Social Consciousness			
	Levene Statistic	df1	df2	Sig.	Levene Statistic	df1	df2	Sig.
Based on Mean	1,18	4	320	0,318	1,27	4	320	0,281
Based on Median	0,91	4	320	0,460	1,06	4	320	0,376
Based on Median and with adjusted df	0,91	4	300	0,460	1,06	4	309	0,376
Based on trimmed mean	1,12	4	320	0,347	1,15	4	320	0,331

(Source: SPSS output)

Appendix H: Additional Information – Multiple Regression

Table 8.9: Correlations: Consciousness and IEC.

Correlations			
		Immediate Environmental Concern	Consciousness
Pearson Correlation	Immediate Environmental Concern	1,000	0,398
	Consciousness	0,398	1,000
Sig. (1-tailed)	Immediate Environmental Concern		0,000
	Consciousness	0,000	
N	Immediate Environmental Concern	325	325
	Consciousness	325	325

(Source: SPSS output)

Table 8.10: Coefficients: Consciousness and IEC.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,81	0,15		18,37	**0,000**	2,51	3,11
	Consciousness	0,37	0,04	0,44	8,65	**0,000**	0,28	0,45
a. Dependent Variable: Immediate Environmental Concern								

(Source: SPSS output)

Table 8.11: Correlations: Consciousness and FEC.

Correlations			
		Future Environmental Concern	Consciousness
Pearson Correlation	Future Environmental Concern	1,000	0,298
	Consciousness	0,298	1,000
Sig. (1-tailed)	Future Environmental Concern		0,000
	Consciousness	0,000	
N	Future Environmental Concern	325	325
	Consciousness	325	325

(Source: SPSS output)

Table 8.12: Coefficients: Consciousness and FEC.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,33	0,24		9,77	**0,000**	1,86	2,81
	Consciousness	0,37	0,07	0,30	5,62	**0,000**	0,24	0,50
a. Dependent Variable: Future Environmental Concern								

(Source: SPSS output)