

University of KwaZulu-Natal

Understanding the factors influencing green purchase intention

By

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DECLARATION

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ABSTRACT

Rapid worldwide economic growth has given rise to increased consumption by consumers, raising concern about the ecological decline and overconsumption of natural resources. Environmental sustainability issues and problems encountered around the world are affecting and altering the consumption patterns of humans lives and actions. Stimulated by the seriousness of the deterioration of the environment, consumers' attitudes and behaviours in consumption matters are steadily changing, but consumption levels of sustainable products in South Africa are still low. Factors such as perceived high price, perceived inferior quality of green products, and greenwashing has been found in some studies to affect consumers' perceptions of green products. The focus of this study was to determine the extent to which these negative perceptions limit consumers' green consumption amongst a sample of South African consumers. To understand the factors potentially limiting green behavioural intentions the following factors were investigated: perceived quality, perceived price, social value, environmental concern, trust in green products and demographics. A casual research design with a survey of 301 adult respondents was used. Descriptive analysis of the profile of the sample presented, and the subsequent analysis of the reliability and validity tests carried out. Univariate analysis was also carried out and to conclude, a multivariate analysis was examined to determine how well the independent variables predict the dependent variable and to test the hypotheses.

Findings showed that the independent variables (perceive quality, perceived trust, environmental concern, and social value) positively influence South Africa consumers' intention to purchase green products, while perceived price had a negative influence. However, the two main variables that had a greater impact were environmental concern and perceived trust. The perceived higher price of green products was found to be a significant but relatively minor constraint' to consumers purchasing these products. Given the major findings from this study, it is recommended that green products should be advertised more intensively and positioned in a way that portrays the benefits that are associated with purchasing and using them. This will raise awareness and trust in green products and may reduce the sensitivity to the higher prices. Marketers should invest in the quality of green products and both marketers and government should put in place environmental awareness campaigns to increase green consumer knowledge on the effect of not going green on the environment. This will raise a concern and in turn intention for green consumption. Limitations are identified and recommendations for future research are proposed.

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CHAPTER ONE

INTRODUCTION

1.1 Introduction and Background

Over the years environmental concern has turned out to be an important public issue, as well as a central topic in several academic research (Delafruez, Taleghani & Nouri, 2014:2). Environmental sustainability issues and problems encountered around the world are affecting and altering the consumption patterns of human lives (Alshura & Zabadi, 2016:1423). In the past decade, rapid economic growth has given rise to increased consumption by consumers raising concern for the ecological decline and overconsumption of natural resources (Choudhary, Islam, Philip & Kumar, 2016:1; Solaiman, Halim, Manaf, Noor, Noor & Rana, 2017:1223).

Protecting the environment has become a social responsibility not only for businesses but consumers as well. Consumer behaviour towards environmentally friendly products witnessed a positive change since the 1970s owing to the high level of ecological awareness (Delafruez, *et al.*, 2014:2; Lim, Ting, Ng, Chin & Boo, 2013:36). This is driven by numerous factors such as improved media coverage, improved environmental problems awareness, increased pressure group activities, and strict national and international legislation. Hence, consumers are now more worried about their behaviour and its influence on the environment (Kalafatis, Pollard, East & Tsogas, 1999:441).

One of the most important challenges that contemporary civilization has acknowledged is that the ecosystem is damaged by human behaviour (Bamberg, Hunecke & Blöbaum, 2007:190) and to contribute generally to the idea of living better with less, a concise shift is needed to practice more green consumption and production, by adopting pro-environmental behaviours that can be explained by action inspired by self-interest (Taljaard, Sonnenberg & Jacobs, 2018:3).

The principle of sustainable development has the prospect to aid companies to attain the highest quality of products and services, but experiential evidence points to the fact that due to consumers' consumption behaviour needless garbage, energy, contamination and material wastage occurs and hence, a great majority of our ecosystem issues (Banytė, Brazionienė & Gadeikienė, 2010:374, Gan, *et al.*, 2008:93). The Kyoto Protocol which came into effect in 2005 aimed to curb climate and worldwide warming, thus heightening the interest of consumers' in ecosystem-related behaviours like recycling, energy-

saving etc. and as a result, ecological ethics issues are prominent in the programs of organizations and consumers alike (Koloba, 2020:36).

Due to the Kyoto protocol, the environment has become an important issue that influences the development, packaging, marketing and disposal of products and green products purchase efficiently reduces environmental degradation (Koloba, 2020:36). The two key causes of human influence on the environment are consumption and population (Mkhize & Ellis, 2018:113). The term green has gone conventional as more individuals are becoming concerned about sustainability-related problems than ever before, as it is expected to contribute to control environmental issues like global warming (Wiwik & Rendra, 2017:25).

One of the greatest solutions offered by green products is that they are appealing (Hahnel, Hahnel, *et al.*, 2015:1), as they are environmentally friendly products that do not bring harm to the earth (Lim, *et al.*, 2013:37, Tseng & Hung, 2013:174). Thus, an effective retail strategy is to promote products as green and a growing number of these products in the market are labelled as eco-friendly (Hahnel, *et al.*, 2015:2). The decision of consumers to purchase eco-friendly goods may contribute to the reduction of ecological damage. Hence, green products selected by consumers can result in an influential motivation for companies to improve their eco-friendly practices (Liu, Shiga & Abdessalem, 2010:87).

The importance of green products dates to the 1970s and specifically to the 1990s due to environmental and social concerns, hence during this time, there was a rapid growth in this area of research (Har, Yaw, Ai & Hasan, 2011:1). Occurring worldwide are environmental issues like rising sea levels, air pollution, water pollution and climate change (Mokan, Lee & Bhoyar, 2018:996). Thus, using environmentally friendly products help to retain efficient energy use, lessen water pollution, reduce the existence of toxic products, encourage the recycling of material sources and many more actions which do not cause harm to the environment (Mokan, *et al.*, 2018:996).

While the consumption of green products tends to grow (Joshi & Rahman, 2015:128), green behaviour is challenging to forecast. In most instances, consumers show an optimistic attitude to the ecosystem and concern for its condition, but they barely adopt green behaviour (Sari, 2012:519). In addition to attitudes, traditional models explaining green behaviour (e.g. the Theory of Planned Behaviour) have also investigated perceived behaviour control and social norms as factors affecting green consumption (Fang, Ng, Wang & Hsu, 2017:3) but they do not fully explain green behaviour or the lack thereof (Joshi & Rahman, 2015:130). Some other possible explanations for non-green behaviour could, for example, be the negative perception of the quality, skepticism due to greenwashing and the lack of trust in green products or the perceived high price of green products.

A study of green product consumption, for example, shows that a substantial barricade to their selection has been their perceived product performance (Maheshwari, 2014:2). Consumers do not believe that the performance of green products is as good as conventional products and therefore perceive green products to be of inferior quality. These negative perceptions regarding green product quality could be a reason for the low levels of green product purchase.

Many consumers also turn out to be reluctant to purchase products that are green due to the risk associated with them, as there are high chances that it might be a scam (Lim, *et al.*, 2013:39). Thus, consumers may be skeptical about green products because the labels repeatedly promise more than the product can deliver (Hahnel, *et al.*, 2015:1). “Greenwashing is the act of confusing consumers concerning environmental practices of a company or the environmental benefits of a product or service” (Gallicano, 2011:1). It was reported by TerraChoice that the green product's statistics went up from 2,739 in 2009 to 4,744 in 2010 (Mitchell & Ramey, 2011:40). A sudden greenwashing rise could have an adverse impact on consumers' assurance for green products, destroying the market for green products and services. This also can adversely affect investors' confidence in environmentally friendly businesses (Delmas & Burbano, 2011:64). Thus, negative perceptions relating to greenwashing and distrust of green products may also be a significant cause of the low levels of green purchasing behaviour.

Consumers are not willing to pay more for ecologically friendly products than traditional materials (Diryana & Kurniawan, 2015:372). Owing to the growth, albeit limited, that is evident in the market for green products, some organizations see this as a marketing prospect for making more profits and as a result, a high price tag is observed to be placed on green products by many organizations (Lee, 2008:574). Organizations claim that the high price is often attributed to organizations' high production costs, but consumers feel it is undeserved. Human greed may thus represent the utmost threat to green products advancement (Reutlinger, 2012:30, Lim, *et al.*, 2013:39).

Owing to the growing consciousness about the products bought by consumers and fear over the imminent global ecological disaster, there are increased prospects of marketers to convince consumers to buy green products. However, concerns over high prices, false claims and poor performance of green products may be limiting consumer adoption of green products. The purpose of this research to examine the degree to which these negative perceptions limit green consumption for South African consumers and to determine their relative impact compared to other factors traditionally found to impact green behaviours such as environmental concern, perceived behavioural control and social norms.

Notwithstanding the fast progress and the prospects of green products growth particularly in the manufacturing of green food in South Africa, green food sales are comparatively low in South Africa

when compared to other nations, with research probing the predictor variables of the intention to purchase green food undertaken in several nations have been unreliable and at times inconsistent results (Naidoo & Ramatsetse, 2016:81).

Sternier eco-friendly law and intensified pressure from green and consumerism groups have spurred companies to capitalize on ecological production to stimulate green consumption and in South Africa, an example of a green policy is the compulsory energy-effective labelling program that requires vendors and companies to attach an energy efficacy sticker to each electronic appliance advertised in South Africa (Paul, *et al.*, 2016:123, Issock, Mpinganjira & Roberts-Lombard, 2019:406). The sole objective was to direct customers in their decision to procure these appliances, boost energy-effective usage and decrease the emission of greenhouse gases. In response to the increasing pressure and intense competition, most companies are integrating green protection into their business policy to discern their offers and generally achieve an economical lead (Issock, *et al.*, 2019:406).

Ingenuities are necessary to decrease the ecological footprint comprising of the rare, environmental reserves to the processes of production, care, maintenance, and products disposals. With South Africa being a developing nation exposed to several environmental problems like natural resources depletion, biodiversity loss, change in climate and an elevated level of income disparity, much effort is dedicated to reducing the disparity between the poor and rich, hypothetically contributing to the elevated levels of consumption with a growing environmental footprint and the associated ecological impacts (Ghita, Saseanu, Gogonea & Huidumac-Petrescu, 2018:4, Leibbrandt, Finn & Woolard, 2012:27). Hence, strengthening the regional economy, environmental concerns and issues can no longer be overlooked by South Africans who should aim to implement more environmentally friendly practices (Taljaard, *et al.*, 2018:1)

A consumer's country of origin affects the extent of their concern for the ecosystem, as evidence shows that customers in advanced nations are more apprehensive about the ecosystem than the ones in less advanced countries (Paul, Modi & Patel, 2016:124). South Africa is a developing country, which lacks an established and adequate foundation for sustainable behaviour, and consumers have little experience in sustainability procedures in comparison to developed countries (Koloba, 2020:38).

Prior researchers have focused on particular subsegments of the South Africa population for example Generation Y, specifically on consumer trust in the ecological performance of green resources and on factors that impact attitudes and buying behaviour of eco-friendly products amongst this segment (Anver & Venter, 2014:183, Muposhi & Dhurup, 2016:6). However, there are presently limited studies that could be found that focus specifically on the extent to which the negative perceptions about green

product inferiority, high price and lack of trustworthiness are prevalent in a South African sample and the impacts of these perceptions relative to traditional determinants, on green consumption.

Though consumer green product purchase intention has been studied, there is hardly any consensus regarding the key factors affecting consumers' intent to purchase such products. Hence, this research sought to investigate the antecedents of consumers' purchase intention of green products, by determining the comparative importance of each variable and which construct most substantially influences green product purchase intention. Also, this research sought to further investigate other possible factors, such as negative perceptions of quality, distrust, and price, affecting green behaviour that could add to the current understanding of green behaviour and possibly the lack thereof, thus assist social marketers in developing strategies to overcome barriers and the drive for green consumption.

1.2 Research Problem and Purpose

The extreme consumption and misuse of natural resources leading to the ecosystem deteriorating are raised by fast economic growth (Chekima, Wafa, Igau, Chekima & Sondoh Jr, 2016:3436; Jaiswal & Kant, 2018:60). Stimulated by the seriousness of the deterioration of the environment, consumers' attitudes, behaviour, and approach to consumption are changing progressively (Biswas & Roy, 2015:463). Green products are recognized widely as being environmentally friendly (Chitra, 2015:37, Yang, 2017:161). While products consumption not causing harm to the ecosystem is gaining further momentum (Lim, *et al*, 2013:35), the market share for the green product is between 1-4% of the whole market (Joshi & Rahman, 2015:129, Alhamad, *et al.*, 2019:86, Tan, *et al.*, 2016:288).

An attitude-behaviour gap thus exists, which means that eco-friendly knowledge and strong pro-conservation values, attitudes, and intentions do not turn into a green purchase (Nguyen, Nguyen & Hoang, 2019:119). While there are many factors found to contribute to the existence of an attitude-behaviour gap, such as individual factors, products attributes and marketing, social influence (Zhang & Dong, 2020:12), environmental awareness, price (willingness to pay more) and gender (Anvar & Venter, 2014:187) the question of why the gap exists particularly concerning the South African market, remains unanswered. The main drivers of consumer green purchase behaviour are individual environmental concern and knowledge as well as the product's functional and green attributes, while the high price and purchase inconvenience of green products are the main barriers towards consumer green purchase behaviour (Joshi & Rahman, 2015:129).

However, research has also found that some consumers believe green products are more expensive than their non-green alternatives, are perceived to be of inferior quality, and that consumers distrust green labels for fear of greenwashing (Lim, *et al.*, 2013:41). These are all negative perceptions that may affect

the purchase of green products and explain the attitude-behaviour gap. The research problem is that the effects of these negative perceptions (that the quality of green products is inferior, skepticism or distrust due to greenwashing and the perceived high price of green products) on South African consumers' green consumption, is unknown. Understanding the extent and effects of these negative perceptions, and their relative impact compared to traditionally investigated factors may help marketers find ways to improve green consumption. Hence, there is a need to study consumers' perceptions and intentions towards the buying of green products among consumers in South African.

1.3 Research Objectives

The purpose of this research is to examine factors motivating consumers' purchase intention of eco-friendly products in South Africa.

The resulting objectives were formulated to address this purpose:

To establish, for residents of South Africa,

1. If consumers perceive the green products to be inferior or lower quality than the non-green products and whether this impacts their green purchase intention.
2. If green products are perceived to be more expensive than non-green products and whether this impacts green purchase intention.
3. The extent of trust in green products and whether this impacts green purchase intention.
4. To determine the extent of environmental concern and whether this impacts green purchase intention.
5. The extent to which purchasing green products is perceived to have social value and the impact of this on green purchase intention.
6. If demographic factors (age, gender, race, education, and income) affect green purchase intention.

1.4 Delimitations of Study

The study was delimited to:

- green products in general and did not do a comparison of different brands or types of green products.
- consumer purchase intention and not actual behaviour.
- the use of TRA and TBP theory and no other theories such as VAB (Value Attitude behaviour)
- only five variables – two traditional variables from the TPB (Environmental concern and Social value) and three variables related to the possible negative perceptions of inferior quality, distrust, and high price.
- Five demographic factors (age, gender, race, education, and income)

1.5 Overview of the Literature Review

The overview of the literature reviewed provides a discussion of the important concepts discussed in the literature review chapter.

Firstly, the literature was reviewed on green marketing. Green marketing is the actions that organisations engaged in when they are concerned about the environment. Hence, organisations distribute products that are environmentally sound to create customer and society's satisfaction (Chen & Chai, 2010:29). Green marketing was reviewed to show the competitive advantage that comes with marketing a product. Green marketing is a corporate social responsibility for many organisations.

The study also reviewed green products and green consumption literature. Eco-friendly products are products that bring less damage to the environment and causes less harm to human health (Shrum, McCarty & Lowrey, 1995:72). The literature on green products was reviewed to highlight the benefits and the satisfaction it brings to the consumer when they consume green products, especially the benefit of not bringing harm to the environment. Green consumption is the individuals' purchasing and consumption behaviour associated with environmental and resource problems (Boztepe, 2012:7). This was reviewed to show the consumer's overall concern for the ecosystem.

The extent of organic product consumption and green purchase intention was also examined in the literature review. Though consumers may consider themselves to be environmentally friendly, their behaviour does not depict the same hence the extent of greens products consumption was studied to understand the reason for the low intention to purchase eco-friendly products. Green purchase intention was also covered in the literature review to see consumer willingness to buy or consume a product or service that has slight or no effect on the environment. A theoretical framework (Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB)) were discussed to comprehend the reasons thought to alter intentions to purchase a green product. The current research adapts the variables from the TPB and adds several variables supported by literature to develop a theoretical context.

1.6 Overview of the Research Methodology

For this study, a causal research design was employed. The research was conducted across South Africa, using the adult population from the age of 18 years. The variables measured in the study questionnaire were created from different literature sources using both the TRA and the TPB variables. Specific emphasis in the literature was on the main constructs of the research, which were perceived quality, perceived price, perceived trust, environmental concern, and social value.

A non-probability sampling technique was employed for this study, with a sample of 301 respondents drawn using snowball sampling. The data was collected via email, where the questionnaire was

administered to initial thirty-five respondents using the email contact list of the researcher and the selected respondents were asked to forward the questionnaire to ten respondents each, on their email address list. This had to be continued until the required number of respondents was reached.

Data collected were evaluated using the Statistical Package for the Social Sciences (SPSS), with the descriptive analysis to profile the sample. Univariate analysis was also carried out on the variables in the conceptual model and to conclude, multivariate analyses were conducted to determine how well the independent variables predict the dependent variable and to test the hypotheses.

1.7 Research Contribution

This study complements existing knowledge on consumers' intention to purchase green products by determining the extent to which negative perceptions about green products exist and recognizing the factors that influence purchase intention amongst adult customers of South Africa. The study assists green marketers in selling a green product to consumers, considering the impact of price, quality, trust, environmental concern, and social value have on the decision to buy the green product. It is anticipated that recommendations made from this research will assist in bridging the knowledge gap on consumers' perception towards green products and consumers intention to buy these products and help society improve green behaviour which may ultimately assist in sustaining the environment. The findings provide practical recommendations for marketers on what antecedents to focus on when trying to increase South Africa consumer intention to purchase green products. These may be of value to green product marketers, retailers, and policymakers.

From a practical perspective, the findings from this study showed that environmental concern is the greatest predictor of purchase intention. The respondents from this study had a high concern for the environment and are interested in environmental issues. Therefore, their concerns affect their purchase intention for the products that they consume. Also, trust was found to be the second predictor of intention. Companies and marketers need to build trust with their customers. Consumers appreciate transparency and companies, and marketers must exhibit transparency at all time by avoiding claims that are not true about being green. From a theoretical perspective, the study confirmed the importance of environmental concern as a predictor of green product intention but also indicates that trust in green products is also a variable that should be included in green product behaviour models.

1.8 Chapter Outline

This section summaries and briefly describes each of the chapters that are covered in this study.

Chapter two covers the literature review, which presents a discussion on important concepts such as the theoretical and conceptual frameworks such as the theoretical and conceptual frameworks that relate to

the topic. The theoretical framework using the TRA and TPB was also discussed in this chapter. Both current and past literature is used to further develop the conceptual framework variables were also discussed in detail. The variables and hypotheses from the framework are critically discussed and justified.

Chapter three covers the research methodology employed to perform this study. The study design, research methods, sampling techniques, sample size and data collection tools are also discussed and justified in this chapter. The descriptive, univariate, and multivariate analysis used in this study is described in this chapter.

Chapter four outlines the study findings which are drawn from the data collected are analyzed in this chapter. A demographic profile of the sample based on age, race, gender, household income, and level of education is presented first. Reliability and validity analysis are discussed. Both univariate and multivariate analysis were analyzed in this section.

Chapter five deliberates on the study findings, provides conclusions on the objectives of the study, and includes recommendations for both marketers and researchers. Recommendations on how these conceptual frameworks can be employed to influence consumers green products purchase intention are also discussed in this section. Also outlined in this chapter, are the limitations encountered in the present study, the recommendation for future study and conclusions.

1.9 Conclusion

The chapter gives an insight into the issues of environmental degradation as a result of non-green production and consumption. It also provides the research problem, purpose, and objectives. A theoretical foundation was laid. The succeeding chapter covers the review of literature, discussion of the theoretical underpinnings and development of the conceptual framework of this study.

CHAPTER TWO

A Review of Green Consumption Literature and the Development of the Conceptual Framework

2.1 Introduction

This section provides an overview of literature reviewed on green marketing, green products and green consumption and the underlying factors affecting green consumption behaviour. The two prominent theoretical frameworks (TRA and TPB), along with the conceptual model development are discussed.

2.2 Green Marketing

The main goal of marketing is to influence the purchase decision of the consumer at that moment (Stankevich, 2017:8). Marketing involves not just the promotion and selling of goods and services, but its purposes are to educate, communicate and impact society (Govender & Govender, 2016:77). The history of green marketing dates back to the late 1970s (Yan & Yazdanifard, 2014:33). In 1975, the American Marketing Association first proposed and defined green marketing in a seminar on ecologic marketing (Chaudhary, Tripathi & Monga, 2011:7, Onurlubaş, 2016:76).

Green marketing is the actions engaged in by organizations that are worried about the environment by distributing goods and services that are environmentally sound and bring about consumer and society's satisfaction (Chen & Chai, 2010:29). It is utilized to illustrate activities of marketing with a purpose to decrease the destructive environmental and social effects triggered by these products (Tseng & Hung, 2013:175). It is an important environmental development that strikes a balance between ecosystem, industrial development, and human life (Wiwik & Rendra, 2017:25). Green marketing supports efficient outcomes such as the satisfaction of the customer, cost-cutting, minimization of waste and wellbeing for businesses and society (Wiwik & Rendra, 2017:26).

Green marketing more recently refers to a general concept of marketing where the invention, marketing and discarding of goods and services bring minimal damage to the ecosystem with an increasing recognition about the effect of global warming, non-biodegradable solid waste, destructive impacts of contaminants and so on (Sarumathi, 2014:777). Green marketing is considered a key trend in modern business (Yasin, Ghafoor, Lodhi, Ahmed & Kausar, 2015:110).

The key motives for green marketing implementation by businesses are due to pressure from the government, cooperate social responsibility, prospect and shareholder, environmental degradation, and competitive pressure (Govender & Govender, 2016:78). For companies to adopt green marketing, it must carry out a study to determine if it will be possible to go green, as this will have a constructive

effect on businesses in the long run (Wiwik & Rendra, 2017:26). As businesses and society engage in different activities and shows concern for the environment, businesses should not ignore the financial aspect of marketing (Wiwik & Rendra, 2017:26).

An appropriate green marketing definition must incorporate transformative change that establishes values for the society, people, and the natural ecosystem (Polonsky, 2011:1311). Businesses should concentrate on green products and services, and perform marketing activities in an ecologically responsible way, while marketers should ensure that consumers comprehend the benefits and need for environmentally friendly products in comparison to non-organic products (Wiwik & Rendra, 2017:25).

Crucial problems of the ecosystem combined with consumer groups demands for green products has led to green marketing emergence and currently, the need for green marketing has intensified, with global ecological concerns becoming more evident (Govender & Govender, 2016:77). When consumers adopt a sustainable green lifestyle, they participate in an increased policymaking process that is tough and complicated (Koloba, 2020:38).

As proposed by Polonsky (2011), transformative environmental marketing can be achieved by establishing different ways of presenting costs and value (environmental value). Altering the communications method with an emphasis on education about the human-ecosystem interface and significance of action and inaction and reframing consumption as wants and satisfaction rather than goods purchase (Wiwik & Rendra, 2017:25).

Preference by consumers for green products and services and their predilection of which marketers have to contend with has constantly changed the way marketers do business and in response to this growing concern, marketers are becoming more ecologically responsible by adopting green marketing via products development that meets the environmentally conscious consumers demands (Dubihlela & Ngxukumeshe, 2016:163).

Over a while, green marketing has evolved through three phases (Singh, 2013:50). The first phase of the green marketing evolution was termed ecological, with marketing activities focusing on helping with environmental problems and providing remedies to these problems (Laheri, Dangi & Vohra, 2014:148). The second stage was termed environmental marketing, with attention shifting to clean technology that integrates innovative new product design. The third stage was the sustainable green marketing phase, which came into importance in the late 1990s and early 2000 (Chitra, 2015:35).

The central character of green marketing is the green consumer, as companies try to comprehend and respond to outside pressure to expand their ecological performance (Peattie, 2001:187). It includes different activities which include product notification, changes to the process of production, changes in packaging and modifying advertising (Chitra, 2015:35). Green products are gradually getting their place in the market (Saravanaraj & Pillai, 2017:199), as their popularity and implementation by companies and by marketers are motivated for the following reasons (Chitra, 2015:36):

1. Competitive advantage or opportunities: As demand changes, various organizations use these opportunities to develop and have a viable edge over organizations marketing non-ecologically responsible substitutes (Singal, Garg, Singla & Bhadal, 2013:472). Positioning a product as a green product creates a good perception of the product as it requires effective communication and product differentiation from its competitors via its ecologically sound qualities, especially when these organizations offer innovative products with new attributes and without having to give up quality (Korichi, Abdelmadjid & Sasu, 2017:105).
2. Corporate social responsibilities (CSR): Many organizations are starting to understand that they belong to a wider community and hence must act in an ecologically accountable way (Rajasekaran & Gnanapandithan, 2013:628). This explains why organizations think they must attain eco-friendly objectives together with profit-related goals (Singal, *et al.*, 2013:473). Two viewpoints can be taken by organizations in this situation: They can use the fact that they are ecologically liable as a tool for marketing; or they can become accountable without encouraging this fact (Pathak, 2017:26).
3. Government pressure: Concerning all marketing-related activities, authorities intend to defend consumers and society, this protection has considerable consequences for green marketing (Kiran, 2012:19). Eco-friendly marketing in relation to governmental guidelines is designed to care for consumers in numerous ways, which are to decrease the manufacturing of damaging goods, change the use and ingesting of damaging goods by consumer and industries, guarantee that every category of customers has the skill to assess the eco-friendly product's composition (Kiran, 2012:19, Bhatti, 2016:74).
4. Competitive pressure: Another key force in the environmentally friendly marketing space has been organizations' aspiration to keep their competitive stance. In numerous instances, rivals are observed by organizations to be promoting their eco-friendly behaviours and try to imitate this behaviour (Kiran, 2012:20, Saini, 2014:70).
5. Profit issues or cost: The competitive advantage and the increased market share with improved products, all contribute to increased profits. The recycling of waste, using fewer raw materials and energy-efficient technologies, enhance productivity and lower operating costs while increasing profits. Also, being ecologically responsible boosts employee confidence and productivity (Korichi, *et al.*, 2017:106, Rajasekaran & Gnanapandithan, 2013:627).

Furthermore, the impression of an improved lifestyle and health awareness by consumers has paved the way for the acceptance of green products to a greater level (Saravanaraj & Pillai, 2017:199).

With the increase in green production, so does the changing aspects of the green market as depicted in Figure 2.1, which shows the worldwide markets for proficient green products, showing a global estimated increase in revenue for green products from 2000-2009 (17.9-54.9 billion US dollars) (Kisaka-Lwayo & Obi, 2014:26).

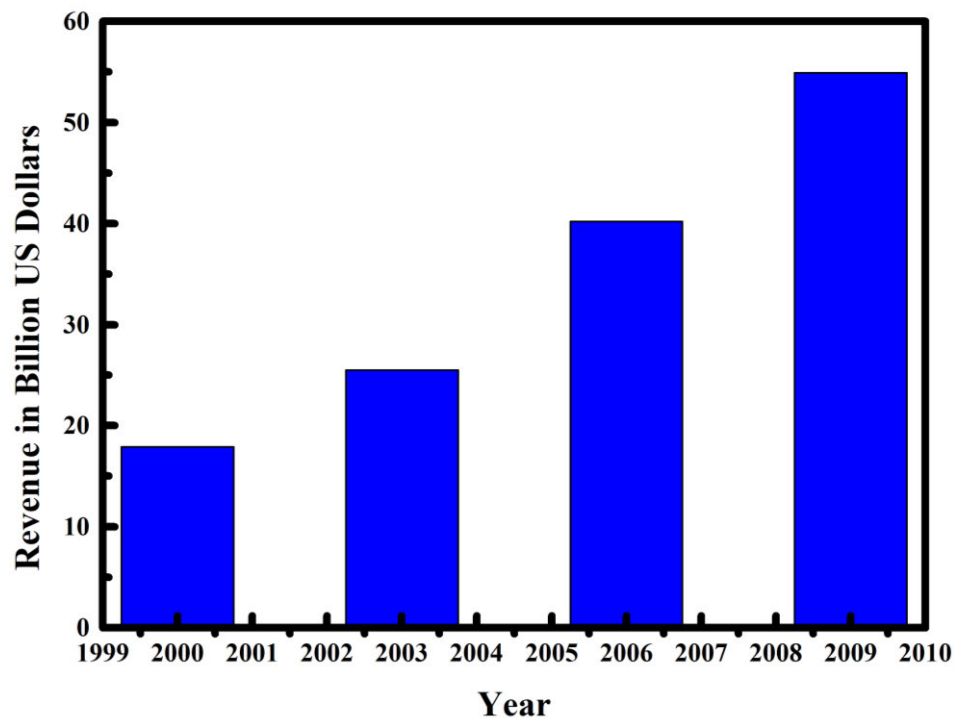


Figure 2.1. Worldwide green products revenue from 2000-2009 (Kisaka-Lwayo & Obi, 2014:26).

In recent years, national and international attempts to encourage green development have increased as a new source of growth despite pressing economic and environmental challenges (Green Growth Best Practice Initiative, 2014:5) Building on these attempts can fast-track progress towards sustainable development and poverty reduction via the sustainable utilization of natural resources and energy, and assessment of the environment (Hynes & Wang, 2012:5).

Green development is a matter of both sustainable development and economic policy (Hynes & Wang 2012:6). It confronts two main priorities together: continued inclusive economic growth needed by developing countries to decrease poverty and enhance wellbeing and enhanced environmental management to tackle scarcities of resources and changes in the climate. Developing countries are most at risk due to change in the climate and tend to be more dependent than advanced economies on the

utilization of natural resources for economic development. Also, many developing nations face a serious economic, social, and ecological threat from food, energy and water insecurity due to climate change and risky weather (Hynes & Wang, 2012:6).

According to a study by Govender and Govender (2016: 77) of consumer purchase behaviour in South Africa, elements of the green marketing mix, most especially green promotion were found to increase awareness and encourage a positive change in consumption behaviour. However, Ndlovu and Ellis (2021: 271) found that very few organisations advertising in magazines in South Africa, a developing nation use green appeals to target consumers. This is a missed opportunity. Mukonza and Swarts (2020: 838) advise South African organisations, especial retailers, to adopt green strategies as they found that green marketing strategies positively impact organisational performance and image. Similarly, Mazirini (2020) found that green packaging and advertising positively affects organisations' competitive advantage and business performance.

2.3 Green Products

A product is a conventional material and with immaterial qualities that provide consumers with benefits through form and function (Maletic, Maletic & Gomiscek, 2010:141). Green products are described as products that have less effect on the ecosystem and cause minimal harm to individual health than their alternatives (Shrum, *et al.*, 1995:72). Products are classified as green if they are produced in a green way and when used for a greener way of life (Wiwik & Rendra, 2017:26). A unique factor of a green product is the lower carbon footprint compared to competitors (McClendon, 2010:2).

Also, products that integrate policies of reprocessing and using fewer noxious materials to decrease eco-impact are considered green products (Chen & Chai, 2010:29). They are designed in a way to diminish the environmental effect encountered in the production, distribution and consumption; this involves the use of biodegradable material, recyclable elements and components (Yang, 2017:161). The design of green products should meet the needs of consumers for environmental protection. While products are purchased specifically by consumers to meet the purpose that they were created for, i.e. for their functional value not bringing harm to the environment is an added benefit to the product (Afonso, Gonçalves, Gavilán & García-Madariaga, 2016:48).

Huang and Da Sang, (2014:184) described product attributes as intrinsic and extrinsic. These authors explain that product attributes are the expressive features that distinguish products from others with intrinsic attributes being information that impacts the product directly and while extrinsic attributes being information that impacts the product indirectly. Intrinsic and extrinsic factors are distinctive sources that consumers use to create their perception of a product (Włodarska, Pawlak-Lemańska,

Górecki and Sikorska, 2019:1). Intrinsic factors are those characteristics that are reflective of the physical product and cannot be modified without altering the physical structure of the product. These may be evaluated before consumption (colour, size, damage), or only experienced through consumption (sensory properties) (Li, Jervis & Drake, 2015:901, Włodarska, *et al.*, 2019:1).

The extrinsic factors relate to the products information sources that are not part of the product physically (packaging, brand name, label, the location where the product is sold, price, and marketing communication) (Włodarska, *et al.*, 2019:1, Collins-Dodd & Lindley, 2003:346). Extrinsic cues such as costs, health and convenience, extrinsic properties and expected intrinsic quality cues of sensory, are used by consumers to assess perceived quality before they make a purchase decision (Li, *et al.*, 2015:903). One of the important factors of product quality is brand name and price, based on the extrinsic cues a detailed understanding of the expectations of a product by a consumer is imperative, as these factors can be a hint of product quality and perceived product quality can influence perception of the performance of the product and hence a repurchase of the product (Li, *et al.*, 2015:903, Collins-Dodd & Lindley, 2003:346).

Intrinsic factors are those aspects of the product “that cannot be changed without altering the physical composition of the product (Li, *et al.*, 2015: 901). Concerning green products, an intrinsic factor that directly influences perception is product appearance. The determination of the product’s perceived value is influenced by the element of the design, as the design represents an important signal which attracts the customer and supports the product’s perceived image (Gallegos-Hernández, Pérez-Villarreal, Barahona & Mayett-Moreno, 2018:4).

According to the Organization for Economic Cooperation and Development (OECD), environmental products reflects what is accomplished to avert, curb and diminish toxic ecological effects on the environment. Green products are an avenue for creating products and services that are advantageous (Lin & Huang, 2012:11). As green marketing is dependent on the existence of green consumer (Tseng & Hung, 2013:175), understanding the mechanisms of green consumption is important.

2.4 Green Consumption

One key area in the discourse of consumption is green consumption (Withanachchi, 2013:69). Green consumption’s definition can be traced back to responsible consumption. Responsible consumption is defined as the act of consumers reducing their purchase that will lead to a shortage of resources and consumers purchasing products with little or less environmental harm (Antil, 1984:20). According to environmental and social standards, green consumption refers to sustainable and responsible consumption when making a purchase decision by consumers (Yang, Shi & Kuang, 2016:143). It is

also referred to as individuals' purchasing and consumption behaviour which is associated with environmental and resource problems (Boztepe, 2012:7). The current ecological challenges faced, such as an increase in sea levels, deforestation, rising worldwide temperature, and diminishing accessibility of natural reserves due to human consumption (Guckian, De Young & Harbo, 2017:74).

Green consumption is motivated by the wish to placate an individual's desires and the overall concern for the social well-being (Nguyen, *et al.* 2019:119). It focuses on the sustainability of behaviour, considering energy-saving and carbon reduction, eco-friendly resources, and justifiable growth (Hsu, Huang, Hsu & Huang, 2016:372). Each time consumers decide to purchase goods or services, the possibility that the decision will contribute to a sustainable pattern of consumption is there (Moisander, 2007:405)

It is not a consequence of constitutional control; however, it starts with the principles held by consumers (Alfredsson, 2004:516). These practices are motivated by convenience, self-indulgence, habit, value for money, personal health concerns, and individual responses to institutional and social norms (Vermeir & Verbeke, 2006:170).

The principles of sustainable development can assist businesses to attain the greatest quality of services and products, but practical evidence shows that contamination, leftover garbage, material and energy waste occurs due to the consumption behaviour of consumers and thus leads to greater mainstream ecological issues (Koloba, 2020:36). Against this backdrop, a point of reference was the signing of the Kyoto Protocol, which came into effect in 2005 to combat worldwide warming and change in climate and consecutively, has raised consumers' concern in environmental issues like energy saving, recycling etc. (Koloba, 2020:36).

From a marketing perspective, an increase in the number of individuals and the manner that they consume may be seen as good due to increase profits, however, with 30 to 40% of environmental problems caused by people's patterns of consumption, consumers decisions and behaviours have a substantial effect on the environment (Mkhize & Ellis, 2018:113). The shift in the green products purchase decision is shown by increasing consciousness regarding environmental sustainability, where companies and consumers are exploring other techniques to lessen the effect of worldwide warming on environmental reserves and one of the ways of doing this, is for the twenty-first-century consumers to select ecological products as a replacement for traditional products (Koloba, 2020:35).

There are four categories of green consumption, which are food, travel, housing, and green consumption (going completely green) (Withanachchi, 2013:3). These categories of green consumption explain the framework of environmentally friendly behaviour (Alfredsson, 2004:516). The first class of

consumption is food, where the total impact on household energy supplies is explored and the release of CO₂ is shifting to a green diet, which needs a reduced amount of energy to be created and results in a reduced amount of CO₂ emissions (Dutilh & Kramer, 2000:98, Goodland, 1997:196, Alfredsson, 2004:516). From the perspective of energy requirements and discharge of CO₂, the green diet comprises of food from a lower down the food chain and to a lesser degree food from higher-up the food cycle (Alfredsson, 2004:516).

The second category of green consumption is travel, which results in the greatest CO₂ discharges (OECD, 1996:84). Green travel includes the embracing of technology that is green and changes in behaviour (Prettenthaler & Steininger, 1999:450). Changes in technology in terms of enhanced fuel proficiencies are demonstrated to alter the overall cost of fuel and household consumption pattern, with the fuel proficiencies in environmental travel expected to advance in line with the treaty among the European Union Ministers of Transport, the International Car Manufacturer (OICA) and the European Manufacturers' Association (ACEA) (An, Gordon, He, Kodjak & Rutherford, 2007:12). The change in behaviour involves the decrease in the ownership of cars specifically in big cities and by young people, the decrease in the possession of several cars, improved public transport use, improved car-sharing organization (CSO) membership, joined with a decrease in car-travel distances, changes in the styles of driving (eco-driving) and a huge decrease in short distance of car-travel (<10 km) substituted with walking or biking (Alfredsson, 2004:518).

The third category of green consumption, also the vital category for energy necessities is housing (Tupenaite, Lill, Geipele & Naimaviciene, 2017:1). The change in behaviour in terms of green housing, comprises changes that diminish hot water and household electricity consumption, while the change in technology involves the transformation in the sources of energy used for heating, as well as the regular old housing stock replacement by new efficient energy categories of houses needing less energy for heating (Alfredsson, 2004:519).

The fourth category of green consumption deals with completely going green, which decreases the requirement for energy and the discharge of CO₂ (Alfredsson, 2004:520). Overall, variations in the pattern of consumption are a superlative short-term control against CO₂ emissions increase, hence total green consumption is required to effect long term reductions in energy requirements and CO₂ emissions. Therefore, there is a need to study consumer behaviour, consumption and perception towards green products and how it would impact the environment if consumers go completely green in their purchases and consumption.

2.5 The Extent of Green Product Consumption

Despite eco-friendly concern by consumers and the rising occurrence of green products on retail shelves, green goods and services purchased by consumers are not as consistent as expected, as ecologically justifiable products represent a trivial section of global demand (Gleim, Smith, Andrews & Cronin Jr, 2013:44).

While individuals might consider themselves as environmentally friendly, their behaviour repeatedly disproves their asserted sensitiveness (Mkhize & Ellis, 2018:116). The attitude-behavioural gap mirrors the truth that ecological understanding and sturdily held pro-environmental beliefs, attitudes and intentions fail to transform into green purchase intention and in practice, other pro-environmental behaviours (Nguyen, *et al.* 2019:119). The gap between customers' positive attitudes towards an actual purchase behaviour of biodegradable products is the green purchase unpredictability or green attitude behaviour gap (Anvar & Venter, 2014:183). This show that consumer constructive attitude about an organic product does not always transform into buying a green product (Joshi & Rahman, 2015:129). The green gap is the distance between the acknowledged value of environmental protection and the actual behaviour in benefit of the environment (Nguyen, *et al.* 2019:119). Individuals who claim to care for the ecosystem and have the desire to engage in environmental behaviour, but do not follow through with their intentions, leading to inconsistency between the actual behaviour and the stated intention (Gleim & Lawson,2014:503).

South Africa, as an emerging country, has less established infrastructure for sustainable behaviour in contrast with advanced countries and South African consumers have comparatively little exposure to sustainability (Scott & Vigar-Ellis, 2014:642, Bisschoff & Liebenberg, 2016:176). However, according to Dubihlela and Ngxukumeshe (2016:171), there is a growing popularity of green consumption among South African consumers, with media coverage of environmental concerns playing a role.

In developed nations, the importance of environmental awareness and the impact of manufacturing and consumption on natural resource depletion is currently a social constant, but on the contrary, in many developing nations, the movement towards green product consumption is still in its early stages (Ferraz, Buhamra, Laroche & Veloso, 2017:14). According to Mkhize and Ellis' (2018:123) study of the green gap in an emerging economy like South Africa, it was observed that respondents participated in some pro-environmental actions, but green behaviour was also observed to lag behind concern with only 13% of the respondents frequently acting in a green manner when compared to similar global study where the percentage was 22%. Hence, Mkhize and Ellis' (2018:123) study of South Africa consumers shows that a substantial green gap exists, and the current study purpose is to fill this research gap by responding

to this practical challenge, a conceptual framework was developed by the authors to test the valid reasons for the gap between purchase intention of green products and consumers' behaviour in South Africa.

Several studies have carried out with regards to green consumption in South Africa. For example, Koloba (2020:34) reported that attitudes and subjective norms did not significantly impact South African consumers' intention to purchase green products, while perceived behavioural control, environmental concern and environmental knowledge significantly influence the intention to purchase green products by South African consumers. The study revealed that consumer trust was impacted by consumers' perceptions of quality and price of energy-efficiency products, consumer attitude towards such products and their level of satisfaction with the products environmental performance. In turn, a positive influence on the consumers' intention to buy energy-efficiency products and their loyalty to these products was impacted by consumer trust (Issack, Roberts-Lombard, & Mpinganjira, 2020:8).

Mkhize & Ellis' (2020:8) study of the barriers to green consumption in South Africa, discovered that South African consumers had a positive attitude towards green products, but they did not have a clear understanding of the benefits linked with green products consumption. It was also observed that subjective norms did not strongly impact green consumption, that most consumers were not swayed by green products' health benefits and did not feel ethically obliged to purchase these green products to save the ecosystem (Mkhize & Ellis, 2020:8). In the study by Anvar and Venter (2014:192) on attitudes and purchase behaviour of green products among Generation Y consumers in South Africa, it was found that social influence, environmental awareness and price did influence consumers attitude. Dubihlela & Ngxukumeshe's (2016:170) study of eco-friendly retail product attributes, consumer attributes and the repurchase intention of South African consumers, reported that South African consumers are increasingly justifying green products consumption aimed at protecting the environment, as consumers find it easy to access their eco-friendly intangible attributes.

While many factors have been found to influence South Africa consumers' green consumption, as evidenced by the studies above, these studies have not investigated the effects of negative perceptions related to green products' inferior quality, high price or distrust of green products caused by greenwashing. This study aimed to fill this research gap.

2.6 Green Purchase Intention

Intention is the specific goal a customer wants to achieve in performing an action (Rahmi, Rozalia, Chan, Anira & Lita, 2017:178). The willingness of consumers to purchase or consume a product or service that has a slight or no effect on the environment is known as green purchase intention (Yang, 2017:161). It is also a vital indicator to describe consumer purchasing behaviour (Jaiswal & Kant, 2018:62, Mahmoud, 2018:129, Ferraz et al. 2017). It is theorized as the prospect and consumer readiness to give inclination to green products over other traditional products in purchase considerations (Cheung, Lam & Lau, 2015:237, Ali & Ahmad, 2016:88, Rashid, 2009:134).

A long-discussed issue relates to the question to what motivates consumers to purchase and an area of interest to marketers wanting to improve their product position appropriately relating what the consumer thinks about a product and what the consumer impressions about the product are (Beneke, Frey, Deuchar, Jacobs & Macready, 2010:447). The intention to purchase is attained from a process of learning and thinking that creates an opinion, which appears to create a motive in consumer's mind and that fulfils the required choice actualization of their thinking (Wiwik & Rendra, 2017:27).

Hence, the search for ecologically sustainable performance levels is relevant to conservationist, preservationists, social, economic, political, decision-making scientists and consultants (De Medeiros, Ribeiro & Cortimiglia, 2014:76).

Altruism and people's motivation play an essential part in the intention to purchase green products but notwithstanding these facts that consumers knowledge and trust in green products benefits, their behaviour generally reflect limited action due to less than 50% of consumers reusing packaging and one in three reprocessing packaging (Koloba, 2020:37). A purchase is made by the consumers to satisfy their professed wants with the anticipated value of the product that they are procuring (Oosthuizen, Spowart & De Meyer-Heydenrych, 2015:11). To change consumers' intentions to purchase, the gap between the benefit and sacrifice would need to be balanced and subsequently converted into actual purchase behaviour (Liang, Chen, Duan & Ni, 2013:11).

An optimistic intention to purchase drives for genuine purchase action by a consumer, just as a negative purchase intention restricts consumers from not purchasing a product (Wu, Yeh & Hsiao, 2011:32). Purchase intention measurement has been used to recognize niches and actualization for products, as the more the intent is, the more possibility of procuring the product (Ferraz, *et al.*, 2017:18). Therefore, the theoretical frameworks are discussed here to understand the factors that are thought to influence intention.

2.7 Theoretical Frameworks Used in Green Consumption Research

A theoretical framework is defined as the “set of assumptions, philosophies, conceptions as well as models that form the basis of the theme recognized in a study which builds up the relationships that exist between them” (Opoku, Ayarkwa, & Agyekum, 2017:14). Over the years, different descriptive theories of consumer behaviour have been advanced. Some of these descriptive theories have been derived from the social sciences and others concentrating on the effects of marketing variables (Kalafatis, *et al.*, 1999:443).

The two prominent theoretical approaches used to explore green consumption are the TRA by Ajzen and Fishbein in 1980 and the TPB by Ajzen in 1985 (Joshi & Rahman, 2015:130). TRA was developed to explain consumers’ behavioural intentions (Figure 2.2).

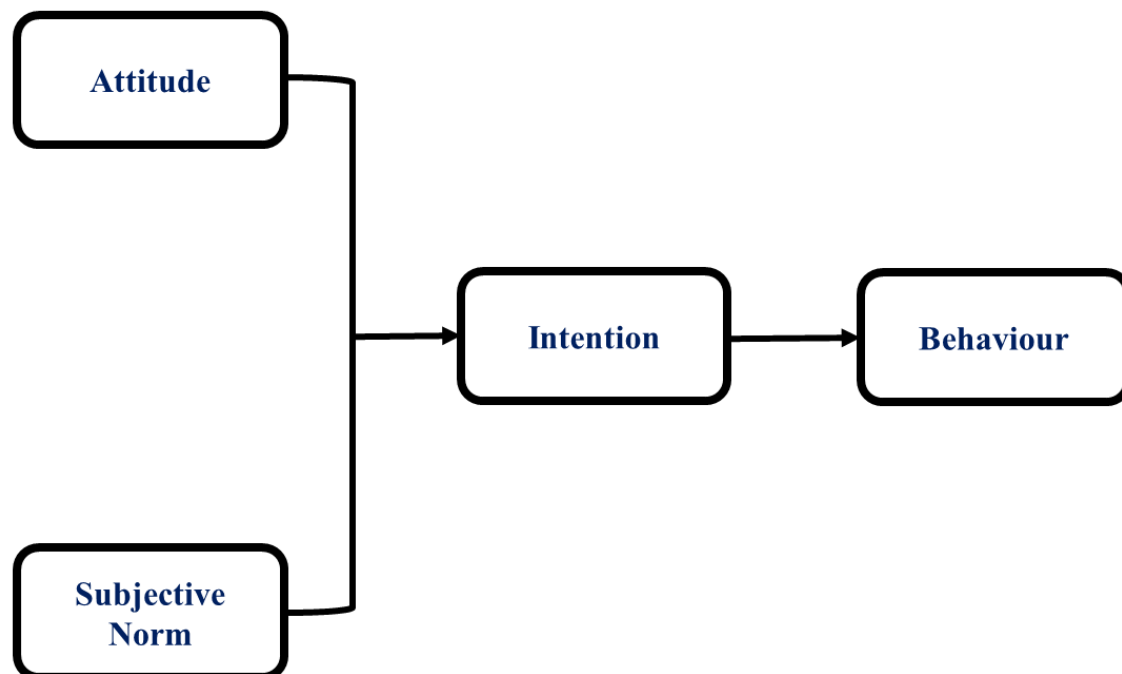


Figure 2.2. The Theory of Reasoned Action (Assarut & Srisuphaolarn, 2010:111).

The concept of intention is central to TRA, where consumers’ intentions to perform a certain behaviour such as green buying behaviour is established by the attitude towards behaviour and subjective norms (Hsu, *et al.*, 2016:373, Han, Hsu & Sheu, 2010:326, Assarut & Srisuphaolarn, 2010:112, Doszhanov & Ahmad, 2015:2, Vazifehdoust, Taleghani, Esmailpour & Nazari, 2013:2492). The most important direct determinant of behaviour, according to the TRA, is the behavioural intention and to explain behaviour by this theory depends on the extent to which behaviour is under volitional control (individuals exercising a great degree of control over their behaviour) (Montano & Kasprzyk, 2015:71).

The two predictors of behavioural intention are associated with behavioural and normative beliefs (Untaru, Epuran & Ispas, 2014:89).

The main concern with the TRA model is the expectation that individuals take logical action in normal life practices, like using birth-control pills (Paul, *et al.*, 2016:124). In such conditions, TRA does not predict an individual intention or behaviour (Untaru, *et al.*, 2014:89), hence, the perceived behavioural control (PBC) variable was included to create the TPB, to further correctly explain the differences in behaviour that are not completely voluntary (Sanne & Wiese, 2018:3).

An extension of the TRA, the TPB believes that attitude towards behaviour, subjective norm and perceived behavioural control are the theoretical independent factors of behavioural intention (Kong, Harun, Sulong & Lily, 2014:926; Untaru, *et al.*, 2014:89) (see Figure 2.3). Behavioural intentions are presumed in the TPB to capture the motivational influences on behaviour (Arvola, Vassallo, Dean, Lampila, Saba, Lahteenmaki & Sheperd, 2008:444). Intentions are signs of how hard individuals are prepared to try, or the amount of influence people are willing to apply to carry out the behaviour, therefore the sturdier the intention to participate in positive behaviour, the greater the possibility that a definite behaviour will be done (Kong, *et al.*, 2014:926). These variables are discussed in the proceeding subsection. The below diagram presents the theory of planned behaviour.

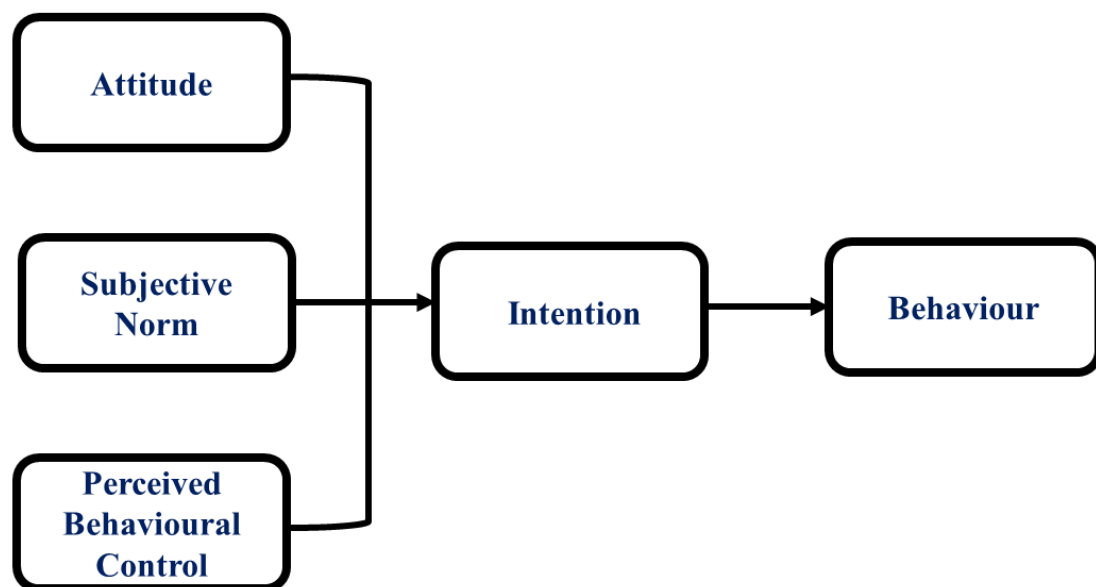


Figure 2.3. Theory of planned behaviour (TPB) (Kataria, Kataria, & Garg, 2013:22).

TPB has been used extensively as a theoretical framework by marketing scholars for consumer research (Caluri & Luzzati, 2016:7). The variables of TPB are included in the study although as seen in the

section below on the conceptual model, are to some extent modified to be relevant specifically to the context of green behaviour. The following section provides more insight into the various variables that makes up the TPB.

2.7.1 Attitude

An attitude is defined as an objective feeling about some person, object, or issue (Kaufmann, Panni & Orphanidou, 2012:53). Attitudes express the extent to which an individual has a preferred or non-preferred behavioural assessment (an action) in question (Caluri & Luzzati, 2016:7). Attitudes are established from an individual behavioural belief and differ from one to another by being either positive or negative (Untaru, *et al.*, 2014:89, Chekima, *et al.*, 2016:3438).

The cost and benefits of performing the behaviour are determined by the instrumental belief in the behaviour and the reason for performing the behaviour is determined by the experiential or affective beliefs for example, about adopting an ecologically friendly manner (Anvar & Venter, 2014:186).

Attitude is believed to be a strong motivator of environmental behaviour (Kollmuss & Agyeman, 2002:243). A favourable attitude towards the environment allows consumers to make ecologically conscious buying decisions (Chekima, *et al.*, 2016:3438). Thus, attitudes predict purchase intentions and purchase behaviour (Vazifehdoust, *et al.*, 2013:2491). Environmental concern was identified by Setyawan, Noermijati, Sunaryo and Aisjah, (2018:147) as an optimistic attitude to protecting the environment and according to Maichum, Parichatnon, and Peng, (2016:2), environmental concern is a straight predictor of certain environmental behaviours. Environmental concern, as an attitude, was used as a variable in the conceptual model section is discussed in subsequent subsections.

2.7.2 Perceived Behavioural Control (PBC)

The addition of PBC control by Ajzen into the TPB was based in part on the knowledge that the behavioural act is evaluated by both motivation (intention) and ability (behavioural control) (Montaño & Kasprzyk, 2008:71). PBC is the assumed ease or effort to perform the behaviour (Untaru, *et al.*, 2014:90). Consumers with high personal control usually have a sturdier behavioural intention to participate in a certain behaviour, as consumers' PBC positively affects their intentions to purchase green products, for example (Kim & Chung, 2011:42).

The PBC expresses the subjective self-confidence to accomplish the behaviour, given the resources available to the individual (Caluri & Luzzati, 2016:7). Thus, PBC describes the individual perception regarding the absence or presence of the resources needed to perform the target behaviour (Alwahaishi & Snášel, 2013:29). Thus, PBC is established based on the control beliefs and the power of the

persuading factors (Sanne & Wiese, 2018:4). It impacts behaviour directly, as the intention to carry out such behaviour may be sturdy, however, an external factor out of a person's control may influence the genuine execution of behaviour (Martinez & Lewis, 2016:1008). Price has been reported as an indicator or factor of PBC by Teng, Ow, Sandhu and Kassim, (2018:19), Kataria, *et al.*, (2013:5) and Nam, Dong and Lee, (2017:5). Nam *et al.*, (2017:5) explain that when the price of green products is seen to be overpriced by consumers (i.e., they perceive the price to be too high to afford), then they tend to purchase other conventional products instead of sustainable goods. However, for this study, perceived price is used rather than a measure of PBC. It is acknowledged that perceived price is an attitude or perception related to the price rather than a perception about the respondent's ability to pay the price and thus is not a measure of perceived behavioural control. Hence, the variable of perceived high price is included in the conceptual model.

2.7.3 Subjective Norms

This is an alternative influencer of behavioural intention in the TPB model (Untaru, *et al.*, 2014:89). Subjective norms represent an individual's idea of how other people view their performance of a given behaviour (Alwahaishi & Snášel, 2013:29). Subjective norms are presumed to be a function of beliefs that individuals like or dislike of the behaviour and these beliefs that underlie the subjective norms are normative beliefs (Nguyen, Hens, MacAlister, Johnson, Lebel, Bach Tan, Manh Nguyen & Lebel, 2018:3).

While the action may not be acknowledged by an individual, the influences of normative social beliefs place pressure on an individual to conform to the group's social norms (Fang, *et al.*, 2017:2). Thus, subjective norms indicate that a person's assessment of social norms is the pressure that determines whether the person should behave in a certain way or not (Mobrezi & Khoshtinat, 2016:443, Caluri & Luzzati, 2016:7). Subjective norm can be controlled internally, as it does not function through outside support such as the obvious congratulation or others resentment (Kalafatis, *et al.*, 1999:444). However, social pressures are based on the person's belief that the behaviour happens among others, and the perception of individuals to approve or disapprove of another individual performing the behaviour (Sanne & Wiese, 2018:4). The subjective norms include perceptions of the government, opinions of friends, environmentalists, family, and the way the community lives as this might also impact consumer behaviour toward environmentally friendly products (Kataria, *et al.*, 2013:23). In the current research, a similar variable to the social norms' variable from the TPB, social value, is included and discussed in the following section on the development of the conceptual framework.

Although the variables of TPB are included in this study, they have been refined based on relevant literature, to be relevant to the context of green behaviour as seen in the conceptual model below.

Neither the TRA nor the TPB is adequate to explain green purchase intention, as the TRA variables are not adequate for foretelling the behaviour of humans (Tommasetti, Singer, Troisi & Maione, 2018:4). Also, the TPB uses an inadequate number of variables to justify reasons for persuading people to embark on a given behaviour in particular situations (Sommer, 2011:91). With these limitations, many changes have been made to the original theoretical models (TRA and TPB) by adding to the already contemplated variables (Tommasetti, *et al.*, 2018:4). Similarly, the current research adapts the variables from the TPB and adds several variables supported by literature to form a conceptual framework.

The TPB has been extensively invalidated and decried by a few researchers due to its methodological errors and the theory fails to consider all the reasonable influencers on behavioural intention (Mhlophe, 2016:4). Thus, the following section discusses the adaptation and extension of the TPB, and the development of the conceptual model used for this study.

2.8 Development of the Conceptual Framework

While numerous constructs have been used to measure consumer intention to purchase, their specific relationships are still unclear and there is a lack of consensus in the research results (Mhlophe, 2016:3). Numerous applied social psychological models can be utilized to back the assessment of various reasons driving people to make specific behaviours (Samit & Cazacu, 2016:125). This research develops a conceptual model adapted from TPB and supported by the literature. Subjective norms represented by social value (Ayodele, Panama & Akemu, 2017:101), environmental concern (Jaiswal & Kant, 2018:62) and demographic factors, such as race, income, age, gender, and education (Chekima, *et al.*, 2016:3440, Tseng & Hung, 2013:175), have all been found to be important factors linked with purchase intentions of eco-friendly products. Also, Jaafar, Lalp and Naba (2012:75) found the following factors that directly or indirectly influence consumers' purchase intentions; consumer attitudes such as trust, and perceived quality and price. Lim *et al* (2013:41) found that the assessments about the high price, lack of quality and distrust due to greenwashing affect consumers perceptions of green products. In theorizing the study, the association between purchase intention (dependent variable) and the independent variables is examined (Vernekar & Wadhwa, 2011:69). Key independent variables identified in the literature are discussed here and hypotheses formulated on their impact on intention to buy green products.

2.8.1 Perceived Quality

Consumers now find themselves in a situation whereby they have to weigh individual motives, such as quality considerations (Vazifehdoust, *et al.*, 2013:2493) and take into consideration the availability, convenience, and quality of the product during the consumer purchase decision process (Chen, Lin, & Weng, 2015:10139). Product packaging, design, features, and warranties are different dimensions of the quality of a product (Abdul-Muhmin, 2002:640). Product quality creates consumer approval and

builds loyalty among consumers (Chang & Fong, 2010:2838, Vazifehdoust, *et al.*, 2013:2493). The product quality is accepted and purchased by consumers when the product quality is high (Asgharian, Salehi, Saleki, Hojabri & Nikkheslat, 2012:501). The high quality of a product could result in the product being easily accepted by consumers and could lead to retailer and wholesaler satisfaction (Chang & Fong, 2010:2838). Product quality is divided into objective quality and perceived quality (Zeithaml, 1988:4). Objective quality describes the technology advantage of products using measurable standards, while perceived quality is what the consumer thinks of overall product quality, as a comprehensive evaluation of the product (Cheung, *et al.*, 2015:235). Perceived quality performances a significant role in the purchase decision of consumer's and brand loyalty and relates to the consumer's subjective judgement about the pre-eminence of a product (Saleem, Ghafar, Ibrahim, Yousuf & Ahmed, 2015:22). A product's quality is evaluated by consumers based on experience and anticipation (Yang, 2017:161).

It was reported by Yang, (2017:165) that the consumers' intention to purchase eco-friendly products was positively influenced by the perceived quality of green products. Saleem, *et al.*, (2015:25) also reported that perceived quality was significantly associated with the consumer's intention to purchase. It was also reported in the study by Lomboan, (2017:110), that perceived quality positively influence the intention to purchase traditional fabric (Kaeng Manado), while Nia, Dyah, Hery, and Bayu, (2018:5) reported that perceived quality had a positive effect on environmentally-friendly detergent product (Lerak) purchase. Green perceived quality was also reported to positively influence consumers purchasing environmentally friendly electronics and electrical goods (Gil & Jacob, 2018:313). Thus, for this research, it is hypothesized that:

H₁ Consumers' perceptions of green product quality significantly impact their green purchase intention.

2.8.2 Perceived Price

In the framework of the product characteristics such as price, green purchase behaviour modification must be explored (Anvar & Venter, 2014:188). Overall, price is a marketing mix element that generates income for marketers and is used as an indicator of quality which the consumer attaches to the product that they purchase (Chekima, *et al.*, 2016:3440).

Pricing of green products takes the people, planet and profit into consideration by setting the price on a product in such a manner that the health of employees and communities (through corporate social responsibility initiatives) are taken care of and still guarantees effective productivity (Shil, 2012:77). As a result, in some cases, prices are higher than that of the normal alternatives (Mahmoud, 2018:128). Classifying a product as green thus usually comes with a high price tag, hence making it more expensive

for consumers (Chekima *et al*, 2016:3440). The time required to search for green products is included in their 'price' (Ritter, Borchardt, Vaccaro, Pereira & Almeida, 2015:509).

Consumers are willing to pay extra for an eco-friendly product if there is an understanding of additional product value and their needs are met (Huang & Da Sang, 2014:184, Kalama, 2007:15, Mahmoud, 2018:124). This product value may relate to enhanced performance, design, function, visual and appeal, or taste (Kalama, 2007:15, Mahmoud, 2018:124). An added plus is environmental benefits which are the defining element amongst products of similar value and quality (Singh, 2013:57).

The most substantial proof supporting the expansion of environmentally favourable consumer behaviour is the growing number of people who are prepared to pay extra for green products (Laroche, Bergeron & Barbaro-Forleo, 2001:503). Chekima, *et al.*, (2016:3447) reported that respondents from their survey were inclined to pay an additional price of 20-30 percent for eco-friendly products compared with traditional products. Xiao, Yang, and Iqbal, (2019:11) and Hashim, Husin, Othman, and Zain, (2017:179) reported a positive significant relationship between the price of food and Chinese home-made appliances and purchase intention. Nirushan, (2017:48) also reported that price had a big positive effect on the intention to purchase organic food products. Anvar and Venter, (2014:192) reported in their study, that price positively influenced consumers attitude towards green products, owing to consumers' sensitivity towards high prices linked with green products.

Consumers' willingness to pay a higher price for green products owing to their environmental concern is supported by the 2008 Eurobarometer, which revealed that up to 75% of consumers in European signaled their willingness to procure green products even if they had to pay extra (Koloba, 2020:35). According to a study conducted by Wekeza and Sibanda, (2019:13) on organically grown products (OGPs) in South Africa, 73% of consumers indicated their willingness to purchase organic green products at a premium price while 16% disagreed.

However, the high cost of biodegradable products has also been found to negatively affect consumers' behaviours. The price of green products and extra charges relating to their use influence the purchase decision as price is considered a barrier to purchasing green products (Chekima *et al.*, 2016:3440). The consumer's perception of the value that the green products bring, which they only see after a long while, is associated with the consumer's price sensitivity (Ritter, *et al.*, 2017:509). Price was identified by Young, Hwang, McDonald, and Oates, (2010:25) as a blockage to organic purchase behaviour as it decreases the effect of attitude and green values in making a purchase decision. Green products are usually appraised at a top price and this has been the overriding cause of the failure of consumers to create constructive purchase intention towards green products (Mhlophe, 2016:7). This author explained that consumers want value for their money to rationalize the premium price being paid and it

is challenging for consumers to justify whether the price is exceptional or not, as they often lack the facts to adequately assess the value of their purchase (Mhlophe, 2016:7).

Due to the context of this study, the price sensitivity of the South Africa market (Mamun, Rahman & Robel, 2014:2, Harmon, Unni & Anderson, 2007:1961, Anver & Venter, 2014: 191), and the negative correlation between price and purchase intention mentioned above in the South African context, the present study tested the impact of perceived price on purchase intention of ecologically friendly products by consumers. The perceived high price is included in the conceptual model and hypothesized by H₂:

H₂ Consumers' perceptions of green product price significantly impact their green purchase intention.

2.8.3 Perceived Trust

Trust is a belief undertaken by one-party that the word, statement or promise of another party can depend on (Sukrat, Papasratorn & Chongsuphajaisiddhi, 2015:2). It is a primary factor of long-term consumer behaviour (Doszhanov & Ahmad, 2015:3). It is the intent to acknowledge weakness based on positive prospects of the behaviours or intentions of another (Dornas, de Mesquita & Patrocinio, 2014:804). It is the inclination to depend on an alternative party based on prospects stemming from that party's ability, dependability, and goodwill (Cheung, *et al.*, 2015:235). Trust is viewed from three perspectives, which are benevolence, ability, and integrity (Zhou, 2013:1086).

Benevolence is when a trustee does good to the trustor, aside from a selfish income reason (Svare, Gausdal & Möllering, 2019:4). It is considered relationship-specific and more related to relationships between people instead of organizations (Howorth & Moro, 2005:5). Honesty is the perception that the trustee adhered to an established principle deemed acceptable by the trustor and is neither relation- nor context-specific but is person-specific (Howorth & Moro, 2005:5). Ability, on the other hand, is described as the set of skills, competencies and characteristics that empower a party to have an impact within some specific domain (Svare, *et al.*, 2019:4). It is more than just their service with an individual but covers all attributes of how they conduct business (Cazier, 2007:47).

Trust is also the willingness to rely on goods and services, recognized from the certainty or anticipation ensuing from its reliability, benevolence, and ability, about ecological performance (Chen & Chang, 2013:492; Chen, *et al.*, 2015:10138). Green trust is the "consumer's willingness to depend on a brand, product or service as a result of his confidence in its environmental reliability, generosity and skill" (Chen & Chang, 2013:67). Trust-related behaviours like a trusting belief (trustworthiness), trusting intentions (willingness to be vulnerable) and trust action (reliance on others), help consumers to overcome the uncertainty perception and the risk involved in the intention to purchase green products

(Lal, Sharma & Sharma, 2017:712, Alarcon, Lyons, Christensen, Klosterman, Bowers, Ryan, Jessup & Wynne, 2018:1906). Although Karatu & Mat (2015:301) reported that green trust had an insignificant relationship with green purchase intention, Doszhanov and Ahmad (2015:9) reported that brand trust had a substantial relationship with consumers' intentions to use green products. Madan, Sharma and Sharma (2017:714), Dehghanan and Bakhshandeh, (2014:1351) and Rizwan, Aslam, ur Rahman, Ahmad, Sarwar and Asghar, (2013:96) also found that trust attributes positively and significantly affected the green purchasing intentions.

The term greenwashing is used to describe the misleading and deceptive claims by a business that their products or services are eco-friendly, however, consumers believe that this is just a marketing strategy that will result in consumers not trusting the company or their product (Chen & Chang, 2013:490). Though greenwashing has been around for several years, its use has increased abruptly in current years due to companies struggling to meet the rising request for environmentally friendly products by consumers, which is caused by the supervisory agencies' sluggishness to set restrictions and guidelines to regulate this practice (Dahl, 2010:1). The significance of this state of affairs, along with inadequate guidelines, deepens the doubt that consumers have about organic products, leading to distrust of the solutions required to protect the environment from the production, supply, or commercialization processes (Braga Junior, Martínez, Correa, Moura-Leite & Da Silva, 2019:228). Hence, the following was hypothesized:

H₃ Consumers' trust in green products significantly impacts their green purchase intention.

2.8.4 Environmental Concern

Environmental concern represents a person's apprehension towards the ecosystem and their level of concern for issues of the natural environment (Lin & Huang, 2012:13). Environmental concern also refers to the individual efforts to save the environment (Setyawan, *et al.*, 2018:147). Overall, it shows how conscious the individual is towards eco-friendly challenges and their willingness to solve these problems (Jaiswal & Kant, 2018:62).

It is commonly believed that environmental concern is a new trend, but the earliest record of environmental concern was documented by George Perkins Marsh in 1864 in his book titled *Man and Nature*, and which was one of the earliest works to relate human behaviours with the ecosystem (Berndt & Petzer, 2011:7900). It is indicative that people who are more humane and feel closer to the environment are more probable to have a level of concern for the environment and to engage in this behaviour, several intrinsic benefits such as the feeling of impacting on the environment for the society common good are experienced by the consumer (Berndt & Petzer, 2011:7900).

Measuring the value that consumers place on the environment, consumers attitude towards acting in an environmentally concerned way is a good indicator of purchasing eco-friendly products, contributing cash to environmental groups, reusing, joining environmental groups, collaborating with elected officials and presence at public hearings (Minton & Rose, 1997:38). Products are more likely to be purchased due to environmental claims by consumers with a greater concern for the environment than those with less concern about environmental issues (Dagher, Itani & Kassir, 2015:187, Kim & Choi, 2005:593). According to Lin and Chang, (2012:132), consumers that are more conscious of the environment use more green products, while consumers that are less conscious of the environment did not display this pattern of usage.

The above paragraphs address the relationship between environmental concern and behaviours, however, environmental concern has also been linked to intentions. Environmental concern has been described as an optimistic attitude towards protecting the environment or a general attitude with secondary impacts on behaviour as a result of behavioural intentions (Setyawan, *et al.*, 2018:147). Similarly, environmental concern described as an intentional attitude with unintended impacts on behaviour as a result of behavioural intention (Vazifehdoust, *et al.*, 2013:2492). Thus, environmental concern plays an important part in consumers intention to purchase green products (Agyeman, 2014:190).

With increased recognition of ecological deterioration, various sections of humanity have started to recognize the toxic impacts of environmental decline to their existence, thus, consumers environmental concern has prompted marketers to integrate environment problem in their decision making (Mhlophe, 2016:8).

While Junior, Satolo, Gabriel, and Da Silva, (2014:33) and Setyawan, *et al.*, (2018:151) reported that environmental concern did not motivate green purchase intention, Khaola, Potiane and Mokhethi (2014:367) reported a constructive association between environmental concern and green purchase intentions. Similarly, Maichum, Parichatnon & Peng (2017:7) report that environmental concern had a substantial effect on young consumers in Thailand green purchase intention and Ahmad and Thyagaraj (2015:883) also reported that environmental concern among consumers in India did meaningfully influence their purchase intention of the green brand. Thus, the following is hypothesized:

H₄ Consumers' environmental concern significantly impacts green purchase intention.

2.8.5 Social Value

Social value is the supposed value resulting from a relationship with a single or more specific social groups (Biswas & Roy, 2015:464; Lin & Huang, 2012:12). Social value is understood through the

boost of status and self-value, for instance, the sharing of shopping experience and interaction with other consumers enables individuals to attain more sense of self-identification (Gan & Wang, 2017:775). Consumer behaviour in product selections and usage is highly affected by the view of those around them (Kumar & Ghodeswar, 2015:333), thus social value is an important driving force behind consumer choice (Biswas & Roy, 2015:464, Lin & Huang, 2012:12). This social behaviour leads to a personal perception of what peers' reason an individual should do (Saha & Kuruppuge, 2016:350). Thus, it can be reflected by friendship, social support, and affection, developed by one's participation and interaction with other associates (Wu, Huang, Chen, Davison & Hua, 2018:691).

Although Wu and Chang (2016:41), reported no significant impact of social value on purchase intention, social value has been reported to significantly influence consumer purchase intentions of Xiaomi smartphones (Xie & Chaipoopirutana, 2014:34), environmentally friendly electrical products (Ayodele *et al.*, 2017:107) and influence the attitude of consumers towards green products (Anvar & Venter, 2014:192; Biswas & Roy, 2015:468). As a result of these studies the following hypothesis is proposed:

H₅ The extent to which purchasing green products is perceived to have social value significantly impacts green purchase intention.

2.8.6 Effects of Demographics on Green Purchase Intention

2.8.6.1 Age

A universal belief to do with age with regards to consumer behaviour is that younger customers carry out greener consumer behaviour than older customers (Han, Hsu, Lee & Sheu, 2011:348). The most common argument as to why younger consumers perform greener consumer behaviour than older consumers is because they are more open to experience, do not worry about prices and are very well aware of the global warming impact (Tseng & Hung, 2013:175, Anvar & Venter, 2014:189, Madahi & Sukati, 2012:157). Omar, Nazri, Osman and Ahmad, (2017:75), observed that younger consumers agree to buy more organic food. However, according to Rahim, Sulaiman, Chin, Arif and Hamid (2017:6), age did not significantly influence Malaysian consumers' purchase intention towards eco-friendly products. The inconsistency from these studies gives reason for determining if age as a demographic factor, affects consumer intentions to pay for organic products as covered in H_{6a} below.

H_{6a} Demographic factor (age) significantly affects green purchase intention.

2.8.6.2 Gender

Prior research has studied gender differences in various green behaviours and variables, but the observed outcome of gender influences on environmental behaviour are varying. However, most research suggests females are more environmentally friendly. For example, females were highly likely to participate in pro-environmental behaviour besides having high intentions to buy green products and being slightly more optimistic in their food-related brand evaluation (Chekima *et al.*, 2016:3441, Liang, *et al.*, 2013:16, Rahim, *et al.*, 2017:6, Kalogianni, Kamenidou, Priporas & Tziakas, 2002:32). According to Chekima, *et al.*, (2016:3446), there was a strong association between the use of eco-label and intention to purchase among females compared to males. Rahim, *et al.*, (2017:6) also reported that there was a considerable difference in the purchase intention of organic products between female and male consumers. This was due to their higher concern for the ecosystem compared to male consumers. Madahi and Sukati, (2012:157) found that purchase intention was positively affected by gender, with being female significantly influencing purchase intention. But males were more inclined to be self-determining and aggressive with respects to socialization and values (Taljaard, *et al.*, 2018:2). Thus, the impact of gender on intention is investigated in hypothesis H_{6b} below.

H_{6b} Demographic factor (gender) significantly affects green purchase intention.

2.8.6.3 Education

An important background factor that enables green purchase intention is the level of education (Rahim, *et al.*, 2017:2). According to the study of Leila and Zohra (2018:631), there was no considerable difference amongst respondents with different education levels intentions to purchase home-grown food products, hence education did not affect the purchase intention of home-grown food products. However, the level of education was observed by In and Ahmad, (2018:5), to be positively associated to purchase green personal care products. Hence, education was included in hypothesis H_{6c} below.

H_{6c} Demographic factor (education) significantly affect green purchase intention.

2.8.6.4 Income

A critical factor that affects purchase intention is income (Pandey & Sharma, 2019:2). The income of the consumer was found by Wekeza and Sibanda, (2019:22), to be an important determinant influencing the consumer intention to purchase organically grown products in South Africa. However, Leila and Zohra (2018:631) found that there was no substantial difference in the intention of consumers with different incomes to purchase home-grown food products. Based on the results of the study conducted in South Africa, income was included in hypothesis H_{6d} below:

H_{6d} Demographic factor (income) significantly affect green purchase intention.

2.8.6.5 Race

Consumer race is another demographic factor that influences the behaviour of consumers and it refers to a set of individuals who have a mutual interaction or culture origin within a larger society (Wong & Mo, 2013:112). Race, as well as culture, can provide an important determining factor to describe an individual's purchase behaviour (Mo & Wong, 2012:29).

According to studies conducted in Malaysia, consumers' race significantly influences the purchase intention of green packaged food, green food, and green home electronic products (Zakersalehi & Zakersalehi, 2012:50, Rezai, Teng, Mohamed & Shamsudin, 2012:4502, Hashim, Yahya and Asrul, 2018:55). The impact of race on intention is investigated in hypothesis H_{6e}:

H_{6e} Demographic factor (race) significantly affect green purchase intention.

2.9 Conceptual Framework and Hypotheses

The purpose of this research is to address the gap in knowledge of the factors affecting green consumption in a developing nation. To summarize, taking into consideration the above discussion, the conceptual context adopted for this research is presented in Figure 2.4 and justified in the details below.

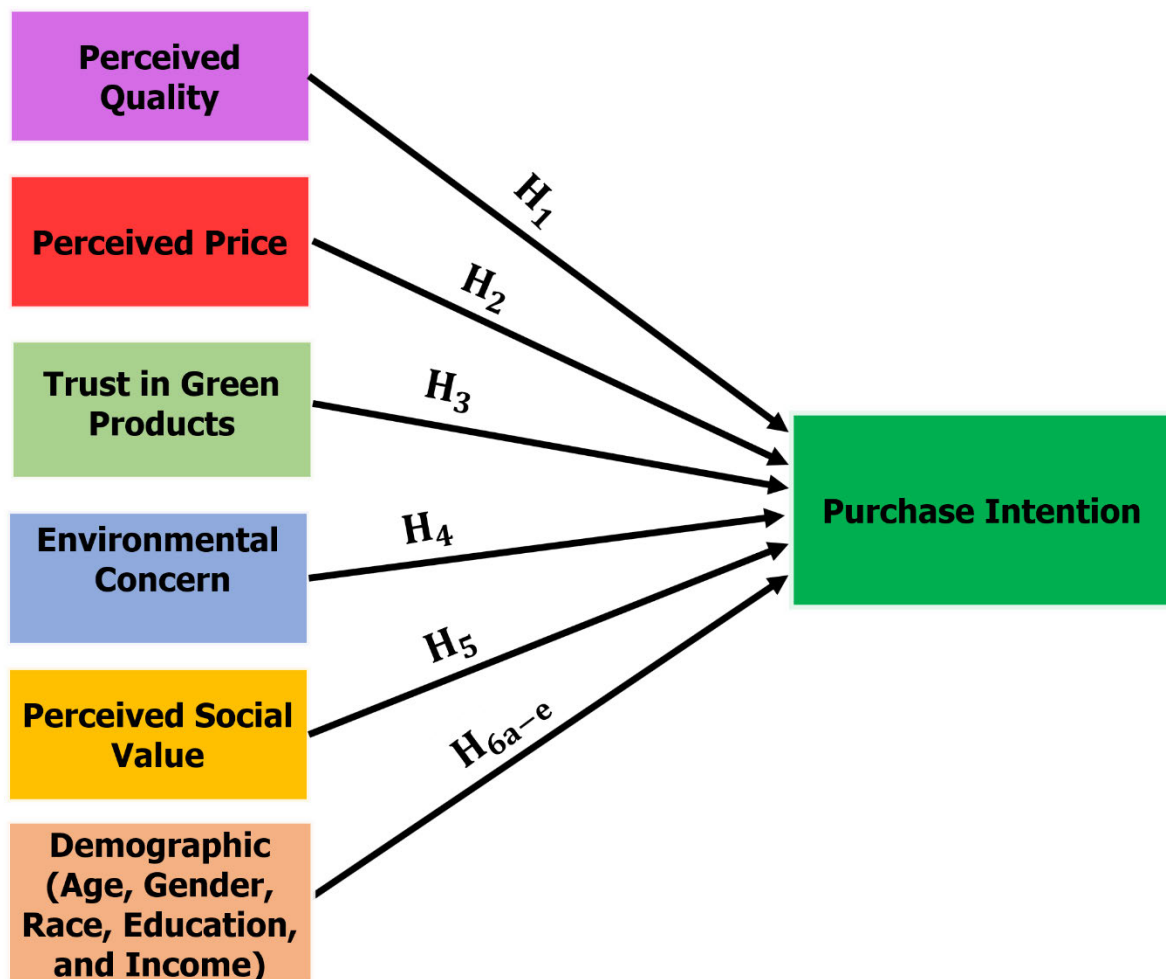


Figure 2.4. A proposed conceptual framework of factors influencing consumers' purchasing intention.

The conceptual model developed, contains the following hypotheses.

H₁ Consumers' perceptions of green product quality significantly impact their green purchase intention.

H₂ Consumers' perceptions of green product price significantly impact their green purchase intention.

H₃ Consumers' trust in green products significantly impacts their green purchase intention.

H₄ Consumers' environmental concern significantly impacts green purchase intention.

H₅ The extent to which purchasing green products is perceived to have social value significantly impacts green purchase intention.

H₆ Demographic factors (age, gender, education, income and race) significantly affects green purchase intention.

H_{6a} Demographic factor (age) significantly affects green purchase intention.

H_{6b} Demographic factor (gender) significantly affects green purchase intention.

H_{6c} Demographic factor (education) significantly affects green purchase intention.

H_{6d} Demographic factor (income) significantly affects green purchase intention.

H_{6e} Demographic factor (race) significantly affects green purchase intention.

2.10 Conclusion

This chapter discusses the literature on green marketing, green products, and green consumption. It develops a conceptual framework from the critical review of the theoretical contexts of the TRA and the TPB, and literature related to the independent variables (perceived quality, perceived price, trust in green products, environmental concern, social value, and demographics). The next chapter discusses the methodology that was adopted in the research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology used for this study was covered in this chapter. The purpose of this chapter was to plan and validate the research procedures utilized to collect and examine the requisite data. Additionally, this chapter comprised of the research problem description, research design and approach utilized in this research. Also covered in this chapter was the sampling strategy, data collection, pilot-testing, and questionnaire administration. The following techniques and statistical procedures were used to analyze the data: reliability analysis, validity analysis, descriptive analysis, and hypothesis testing.

3.2 Research Problem

Fast economic growth leads to extreme consumption and mismanagement of natural resources leading to the deterioration of the ecosystem (Chekima, *et al*, 2016:3436, Jaiswal & Kant, 2018:60). Moved by the gravity of the environmental deterioration, consumers' attitudes, behaviours, and approaches in consumption matters are shifting progressively (Biswas & Roy, 2015:463). While the consumption of products causing damaging effects on the ecosystem are gaining more momentum (Lim, *et al*, 2013:35), the whole green products market share improved from 1 to only 4% (Alhamad, *et al*, 2019:86, Tan, *et al.*, 2016:288, Joshi & Rahman, 2015:129).

Environmental marketing criticism by consumers is due to false, unproven, or overstated claims like 'biodegradable', 'recycled', and 'eco-friendly' used by many organizations to describe green benefits which have been unconfirmed, questionable, or impracticable (Mostafa, 2009:11031). Many consumers not keen to pay a higher price for organic products, as the price charged on green products are usually perceived by consumers' to be higher than that charged for traditional products and they tend to derive more value from price and quality attributes (Gan, Wee, Ozanne & Kao, 2008:94, Ayadi & Lapeyre, 2016:368). Also, high price disparities and inconveniences linked with green products may discourage purchasers from purchasing them (Gan, Wee, Ozanne & Kao, 2008:94). Therefore, perceived high price, perceived inferior quality of green products, and greenwashing factors has been found in several studies to influence green products perception by consumers. In South Africa (SA), there is limited research on the existence and effects of these negative perceptions. Understanding the extent of these perceptions, and their relative impact on green behaviour compared to traditionally investigated factors may aid marketers to find ways to improve green consumption. Consequently, the purpose of this research is to determine whether the above negative perceptions are possible explanations for the limited green behaviour amongst SA consumers using the conceptual framework formulated and to determine their relative influence associated with traditional factors investigated in relation to green behaviour.

3.3 Objectives of Research

The study purpose was to comprehend why green behaviour is limited and to find ways to increase green consumption by determining what the specific barriers are. To address this, the following objectives were formulated:

As indicated in the introduction chapter of this study, this study aims to achieve the following objectives.

1. If consumers perceive the green products to be inferior or lower quality than the non-green products and whether this impacts their green purchase intention.
2. If green products are perceived to be more expensive than non-green products and whether this impacts green purchase intention.
3. The extent of trust in green products and whether this impacts green purchase intention.
4. The extent of environmental concern and whether this impacts green purchase intention.
5. The extent to which purchasing green products is perceived to have social value and the impact of this on green purchase intention.
6. If demographic factors (e.g., age, gender, education, income and race) affect green purchase intention.

3.4 Hypotheses

This research thus aims to address the gap in knowledge of the factors affecting green consumption in a developing nation. The conceptual model developed in the literature review chapter contains the following hypotheses:

1. **H₁** Consumers' perceptions of green product quality significantly impact their green purchase intention.
2. **H₂** Consumers' perceptions of green product price significantly impact their green purchase intention.
3. **H₃** Consumers' trust in green products significantly impacts their green purchase intention.
4. **H₄** Consumers' environmental concern significantly impacts green purchase intention.
5. **H₅** The extent to which purchasing green products is perceived to have social value significantly impacts green purchase intention.
6. **H₆** Demographic factors (age, gender, education, income, and race) significantly affect green purchase intention.
 - a. Demographic factor (age) significantly affects green purchase intention.
 - b. Demographic factor (gender) significantly affects green purchase intention.
 - c. Demographic factor (education) significantly affects green purchase intention.
 - d. Demographic factor (income) significantly affects green purchase intention.

- e. Demographic factor (race) significantly affects green purchase intention.

3.5 Research Methodology

Research is a rational and methodical examination for modern and useful information on a specific subject matter (Rajasekar, Philomonathan & Chinnathambi, 2006:1). More than being established skills, it is a means of thinking, studying the different characteristics of the everyday professional work decisively, identifying and preparing supervisory principles that oversee a detailed process and creating and examining innovative concepts that promote the development of practice and profession (Kumar, 2011:22). The research aim is to determine answers to questions through scientific method application and to find out the fact which is concealed that has not been discovered yet (Pandey & Pandey, 2015:9). The research methodology is a guide to research and the procedure employed to conduct research (Igwenagu, 2016:5). Research methods are methods researchers use to carry out a study. It specifies the process and procedures on how to gather, sort, and analyze data so that it can lead to some conclusions (Walliman, 2011:7).

3.6 Research Philosophy

The word paradigm was originally utilized by Thomas Kuhn in 1962 to mean a philosophical way of thinking (Kivunja & Kuyini, 2017:26). It has its aetiology in Greek and means pattern. The word paradigm is employed in research to define a researcher's worldview, as a belief system and postulation about knowledge development (Kivunja & Kuyini, 2017:26, Saunders, Lewis, Thornhill & Bristow, 2015:124). It is a conceptual lens via which the scientist assesses the procedural features of their study, which determines the research techniques to be utilized and how to analyze the data (Kivunja & Kuyini, 2017:26). The paradigm of scientific research comprises of ontology (the nature of our beliefs about reality), epistemology (the branch of philosophy that studies the nature of knowledge and the process by which knowledge is acquired and validated), methodology (an expressed, hypothetically informed method for data production) and methods (precise means of collecting and examining data, like questionnaires and open-ended interviews), with the four main leanings of research philosophy being positivist, interpretivist, pragmatic and realistic research philosophy (Žukauskas, Vveinhardt & Andriukaitienė, 2018:121, Rehman & Alharthi, 2016:51).

The term positivism rose to prominence in the early nineteenth century owing to the work of French philosopher Auguste Comte (Rehman & Alharthi, 2016:53). The positivist paradigm describes a worldview of research, grounded in research techniques as the scientific technique of study and the researcher's effort to describe the phenomena studied in the most efficient way possible (Kivunja & Kuyini, 2017:30). In this research philosophy, the social world can be grasped in an objective way, as the researcher is an objective analyst, and based on this, the researcher distances himself from personal

values and works autonomously (Žukauskas, *et al.*, 2018:123). Interpretivism is a reaction to the over domination of positivism and it rejects the idea that only provable truth exists autonomous of our senses (Rehman & Alharthi, 2016:55). According to this research philosophy, the social world can be understood in a subjective way and huge consideration is accorded to recognizing the ways across which the social world is experienced by individuals (Žukauskas, *et al.*, 2018:123).

Pragmatism as a research philosophy was developed recognizing the world singular and multiple realities, establishing itself toward solving applied problems in the real world (Sefotho, 2015:28) and the realistic research philosophy which originated from the work of Roy Bhaskar in the late 20th century, to deal with the principles of positivist and interpretivist research philosophies (Saunders, *et al.*, 2015:139, Žukauskas, *et al.*, 2018:123).

The positivism research philosophy was utilized for this research as the primary goal of this research was to determine consumers' perception towards eco-friendly products and their intent to buy these products in South Africa. To examine this, a conceptual framework was developed from existing theories as mentioned in the literature review section which were used to build the hypotheses. According to Saunders *et al.*, (2015:137), these hypotheses are verified and confirmed or refuted in whole or as a part leading to the development of a further theory which may be tested through additional study and it is more likely to employ a very well-designed methodology to enable reproduction as well as quantitative statistical data analysis. Thus, scientific techniques have been applied to describe the phenomena (of green purchase intention) in an efficient way (Kivunja & Kuyini, 2017:30). Hypothesis testing is an objective analysis of the phenomenon.

3.7 Research Design

A research design is an approach to research a topic (Greener, 2008:38) or a strategy used to answer the research question, stipulating the approaches and measures used to collect data (Cant & Van Heerden, 2013:131, Sileyew, 2019:8). There are numerous conditions to classify research types, such as the method of research and goal of the research, however, the type of research to be used depends on the research problem (Walliman, 2011:7). The following types of research designs were identified by Cant and Van Heerden (2013:132), exploratory research, descriptive research, and causal research.

Exploratory research design is used to observe what is in existence already. Exploratory research is a required step during which items of questionnaires are formulated at the time of scientific literature analysis (Žukauskas, Vveinhardt & Andriukaitienė, 2018:2). It is also a form of research that creates a

preliminary understanding of the kind of issues and questions developed to be investigated by more extensive studies (Strydom, 2013:151).

Descriptive research defines situations and answers questions such as who, what, when, where, and why (Cant & Van Heerden, 2013:133, Burns & Bush, 2012:70). It tries to obtain a comprehensive and precise description of a situation (Cant & Van Heerden, 2013:133). In quantitative research, the descriptive research design basic goal is to investigate the relationships between different variables and researchers are required to clearly define the measurement and the population, collect, and assess the opinion and behaviours of the sample (Yang, Al-Shaaban & Nguyen, 2014:22).

Causal research aims to ascertain the level to which variations in one variable are caused by modifications in other variables (Cant & Van Heerden, 2013:135, Asenahabi, 2019:80). It is conducted to learn and report about relationships among diverse characteristics of the phenomenon under study and it seeks to recognize causes, to establish causality between factors and determine the impact on the behaviour of a social phenomenon, and to forecast how one phenomenon will vary or differ with another variable (Strydom, 2013:154). Therefore, for this study, a causal research design was carried out by the researcher to investigate the various factors that cause the consumer to intend to purchase green products. Relationships between the various independent variables (Environmental concern, social value, trust, perceived quality and perceived price and various demographic variables) and the dependent variable (green purchase intention) were investigated to determine which variables best predict green purchase intention.

Since the research sought to investigate the relationship between the dependent and independent variables, quantitative research was appropriate. Quantitative research methods involve collecting numerical data that are analyzed employing statistically based approaches (McDaniel & Roger, 2010:112). Quantitative research asks questions like 'how long', 'how many', 'the degree to which'; calculates data, and generalizes results of the population of interest (Macdonald & Headlam, 2008:9). This type of research is found appropriate for this research as it used numerical data to describe the phenomenon. Therefore, a quantitative research method was applied using a questionnaire to investigate the relationships between perceived quality, perceived trust, perceived price, environmental concern, social value, and demographic factors with consumer intention to purchase a green product. It was employed to quantify human behaviour, opinions, attitudes, and other variables and generalization made from a bigger population.

3.8 Sample Design

Before getting a sample from a population, the researcher determines whom data is to be collected from; this is known as a sample design (Pandey & Pandey, 2015:14).

3.8.1 The Research Target Population

The target population of this research were adults aged eighteen years and above, living in South Africa. Respondents needed to be literate and have a computer with internet access or a mobile phone enabled to receive emails as questionnaires were distributed via e-mail. The combination of respondents that meet the criteria is referred to as the target population (Samkange, 2009:31) or the set of individuals that the research wants to make a postulation about (Muijs, 2011:37). Since this research was about investigating consumer purchase intention, the adult residents were the right population to use as they can make a purchase decision. According to South African law, a person under the age of 18 years is considered a minor, hence anyone over the age of 18 is therefore recognized as an adult and can make their personal judgments (Strode, Slack, & Essack, 2010:247). Another reason for choosing an adult population was that persons above 18 years are acquainted with manufactured goods purchase and are also authorized in their decisions for selecting the right items between various available alternatives (Rizwan, Mahmood, Siddiqui & Tahir, 2014:297). According to StatsSA (2019), there is an estimated population of 58,8 million people living in South Africa comprising of 29.7 million females and 28.86 million male (Statista, 2019) while the adult and youth populations make up 15.9 and 20.6 million of the total population of South Africa (StatsSA, 2019).

3.8.2 Sampling Method and Sample Size

The sampling method can be either probability or non-probability sampling (Walliman, 2011:14). Owing to the constraint of having access to the full population or a sampling frame of South African adults, a non-probability snowball approach was utilized. When a researcher selects a sample through a non-random method, it is called a non-probability sample (Pandey & Pandey, 2015:53). According to Pandey and Pandey, (2015:47), a probability sample is when every element selected has a recognized probability of being included, while a sample selected using non-random methods is called a non-probability sample. Non-probability sampling is appropriate for this study as it is more economical to conduct and less complicated (Welman, Kruger & Mitchell 2005:68) and no sampling frame exists from which to draw a probability sample (LaMorte, 2016, Makgopa, 2016:524). The non-probability snowball approach was implemented as a small group of participants can help assemble a larger sample via their well-developed social networks (Lai & Cheng, 2016:70). This technique is useful in hard-to-reach populations (Shaghghi, Bhopal & Sheikh, 2011:86) which was the case as a result of coronavirus pandemic (COVID-19) and lockdown from the government of South Africa.

In this study, the questionnaire was distributed via e-mail to thirty-five respondents selected non-randomly from the researcher's email address list, and the selected respondents were asked to forward the questionnaire to ten respondents each, on their email address list. This is in an attempt to get a sample of 350, as adopted from the study of Scott and Vigar-Ellis (2014:644). No specified criteria were used in selecting the thirty-five respondents. To address non-response and respondent dropout, each Round two respondent was asked to forward the questionnaire to two additional respondents on their contact lists. Snowball sampling may continue by requesting the second-round respondents to also forward the questionnaire to their contacts until the desired sample size is achieved (Karunanayake & Wanninayake, 2015:46). Snowball sampling defies the two traditional techniques (the sampling frame, which is an establishment of a list of the representatives of the population to be researched and the collection of a specific sample of data from the sampling frame), as it does not depend on a sampling frame and no sampling frame can be constructed (Kirchherr & Charles, 2018:2). The snowball sampling method is used to access a wide variety of viewpoints of consumers' intention to purchase green products (Kirchherr & Charles, 2018:5).

The questionnaire was emailed directly to respondents to complete. Completed questionnaires were then emailed back to the researcher. Those recruited by the first 35 respondents also forwarded the completed questionnaires directly to the researcher and copied their recruiter on the email. No screening questions were deemed necessary as the research sought to determine the extent to which negative perceptions relate to green product behaviour or lack thereof, thus respondents did not need to be regular purchasers of green products. Understanding why consumers do not purchase green products was deemed an equally important outcome of the research.

3.9 Research Instrument

3.9.1 Questionnaire Design

Through means of a quantitative study, the survey method was used to carry out this research. To provide a wide perspective, the questionnaire was used as it is reasonable and is the most generally used tool for collecting primary data (Cant & Van Heerden, 2013:138). A questionnaire is defined as a list of questions utilized to generate the information required to reach the study objectives; it is also a formal plan for gathering information from respondents (McDaniel & Roger, 2010:371). The developed questionnaire used for this study (Appendix B) was based on various validated multiple-item measurement scales from previous literature. The questionnaire was also pre-tested.

When designing questionnaires, the researcher must consider the nature of the question; is it a close-ended or open-ended question (Cant & Van Heerden, 2013:138). Care was undertaken to ensure that the questionnaire was easily comprehensible to the respondents, which was done by utilizing simple

English language vocabulary and creating questions in an explicit, clear, and concise way. Also, the span of the questionnaire was considered adequate, as it was confirmed from the pre-test that the questionnaire could be completed within 20 minutes. The questionnaire was complemented by a cover letter clarifying the research study purpose, providing the appropriate contact details, as well as requesting participation. At the beginning of the questionnaire, instructions were provided, and all respondents were assured of their privacy and confidentiality. An informed consent form was completed by all respondents, indicating their approval to partake in the study and that completing the questionnaire was voluntary (Appendix A).

For this research, a close-ended questionnaire containing Likert scale questions was used. The questionnaire used a five (5) -point Likert scale with 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree, and respondents were requested to express their agreement or disagreement with these statements. The Likert scale is selected as an instrument to capture respondent perception and offers several benefits as a research instrument (Liebenberg, 2015:25). According to Liebenberg (2015:25), the questions are easily understood and produce reliable answers. Secondly, Likert scale questions produce clear pictures and lastly, it is easy to capture, examine, and evaluate respondents' responses. The Likert scale produces a greater consistency with smaller items than scales with other approaches (Saha, 2017:53). The study instrument used in this research for data collection comprises of a set of questions, which were subdivided into two sections.

Section A: A set of questions about the factors that impact the intention to purchase green products.

Section B: Demographic information (age, race, income education, and gender). The measuring instrument in Section A (A1-26), was employed to obtain information on the research topic, and objectives are discussed in the subsections below.

3.9.1.1 Perceived Quality (PQ)

Questions 1-5 examined the respondents' perceptions about the quality of eco-friendly products. These questions were used to address the first research objective: to evaluate how consumers perceive the quality of green products compared to non-green products and the impact of this on green purchase intention. Chang and Chen (2014:208) developed a scale for perceived quality which was also used by Chen, *et al.*, (2015:10144). The scale has five items, which were examined on the five-point Likert scale layout to determine the perceived quality of green products. The wording of the scale items was adjusted slightly to make them as clear as possible for a South Africa audience. The first question, for example, originally was 'the quality of this product is regarded as the best benchmark with respect to environmental concern' and was adapted to specifically refer to 'green products'.

1. The quality of the green products is regarded as the best benchmark.
2. The quality of the green products is reliable.
3. Green products are durable.
4. The quality of green products is excellent.
5. The quality of the green products is professional.

The Cronbach's alpha (α) was determined by Chang and Chen (2014:208) to be 0.851 and 0.882 on a successive use of scale by Chen, *et al.*, (2015:10144). The Average Variance Extracted (AVE) was also determined by Chang and Chen (2014:208) and Chen, *et al.*, (2015:10144) to be 0.734 and 0.587, which indicated that the scales had convergent validity. Therefore, the scale was valid, and a reliable measure justifying its use for this study.

3.9.1.2 Perceived Price (PP)

Price is the most critical issue for consumers every time a decision to purchase a product is made (Phan & Mai, 2016:58) and it is believed to be a major reason consumer may choose not to purchase green products, as these products are costly (Govender & Govender, 2016:79). Most consumers are willing to pay a premium if there is an opinion of added product values (Mahmoud, 2018:128). The perceived price construct was an independent variable to determine the impact of price on consumers' intention to purchase green products. The four-item scale of perceived price was developed by He and Zhan (2018:3555) and used by Wang, Ma, and Bai, (2019:6) using a five-point Likert scale layout. The items utilized were modified to suit the current study:

1. Green products are very expensive.
2. Green products are costly.
3. The price of green products is higher than that of corresponding traditional products.
4. The price of green products is higher than expected.

The Cronbach's alpha (α) was determined by He and Zhan (2018:3555) to be 0.894 and 0.71 on a successive use of scale by Wang, *et al.*, (2019:6). Therefore, the scale was a reliable measure. The Average Variance Extracted (AVE) was also determined by He, and Zhan (2018:3555) and Wang, *et al.*, (2019:6) to be 0.757 and 0.57, which indicated that the scales had convergent validity, therefore justifying the scale being used for this study.

3.9.1.3 Perceived Trust (PT)

Trust is the willingness to depend on one thing based upon the certainty resulting from its trustworthiness (Alshura & Zabadi, 2016:1425). It is a key factor of long-term behaviour by a consumer (Doszhanov, & Ahmad 2015:3). Consumer intention to purchase is affected by consumer trust if an

environmentally friendly product is being questioned by consumers (Doszhanov, & Ahmad, 2015:3, Chen, *et al.*, 2015:10144). The perceived trust scale was developed by Chen and Chang (2013:495) and was subsequently adopted by Chen, *et al.*, (2015:10144) to a four-items scale evaluated on a five-point Likert scale layout to determine the impact of perceived trust on the intention to purchase environmentally friendly products.

1. I believe that green products' environmental images are generally reliable.
2. I think that green products' environmental performance is generally dependable.
3. Overall, I believe that green products' environmental claims are trustworthy.
4. Green products' environmental performance meets my expectations.

The Cronbach's alpha (α) was determined by Chen and Chang (2013:495) to be 0.910 and 0.892 on the successive use of scale by Chen, *et al.*, (2015:10144). Therefore, the scale was a reliable measure. The Average Variance Extracted (AVE) was also determined by Chen and Chang (2013:495) and Chen, *et al.*, (2015:10144) to be 0.867 and 0.667, which indicated that the scales had convergent validity, therefore justifying the scale being used for this study.

3.9.1.4 Environmental Concern (EC)

Environmental concern (EC) is a major cognitive measure appropriate to forecast one's environmentally friendly behaviour, as it holds the individual perception towards the ecological problems and their commitment to solving these challenges (Jaiswal & Kant, 2018:62). Constructs were used in the current research to ascertain consumer's perception towards ecological problems, their inclination to solve these problems, and how it influences consumer's intention to purchase green products without doing any harm to the environment. The five-item scale was used by Paul, *et al.*, (2016:128) on a five-point Likert scale layout developed from the original six-items scale of Kilbourne and Pickett, (2008:892).

1. I am very concerned about the environment.
2. I would be willing to reduce my consumption to help protect the environment.
3. Major political change is necessary to protect the natural environment.
4. Major social changes are necessary to protect the natural environment.
5. Anti-pollution laws should be enforced more strongly.

The initial scale was developed by Kilbourne and Pickett, (2008:892) using six items scales and the Cronbach's alpha α was determined to be 0.81. These scales were successive use by Paul, *et al.*, (2016:128) as five items scales, with Cronbach's alpha α of 0.787. Therefore, the scale was a reliable measure on both scales. The Average Variance Extracted (AVE) determined by Kilbourne and Pickett, (2008:892) on a six-item scales and Paul, *et al.*, (2016:128) on a five-item scales were 0.64 and 0.526

respectively, which indicates that the scales had convergent validity, therefore providing validation for the scale being used for this study.

3.9.1.5 Social Value (SV)

The social value measures the perceived value stemming from a relationship with single or more particular social groups (Lin & Huang, 2012:12), with social pressure being a major driving force behind the choice of the consumer (Biswas & Roy, 2015:464). Social value was assessed by using the scale developed by Sweeney and Soutar (2001:208) and used by Yu and Lee, (2019:8) which was examined on the five-point Likert scale layout, the effect of social value on the intent to purchase green products. Sweeney and Soutar (2001:208) developed this scale for social value, which was later used by Yu and Lee, (2019:8). The scale had four items, which are.

1. Green products help me feel accepted.
2. Green products improve the way I am perceived.
3. Green products make a good impression on other people.
4. Green products give their owner social approval.

The Cronbach's alpha (α) was determined by Sweeney and Soutar (2001:208) to be 0.82 and 0.921 on a successive use of scale by Yu, and Lee (2019:8). Therefore, the scale was a reliable measure. The Average Variance Extracted (AVE) was also determined by Sweeney and Soutar (2001:208) and Yu, and Lee (2019:8) to be 0.55 and 0.731, which indicated that the scales had convergent validity, therefore providing validation for the use of the scale for this study.

3.9.1.6 Purchase Intention

Purchase intention is the most substantial pointer of consumer behaviour (Wang & Chen 2016:99). It is theorized as the prospect and readiness of an individual to give a predisposition to products having features of environmentally friendly over conventional products in their purchase considerations (Rashid, 2009:134). In a study by Wang, *et al.*, (2019:5), the three-item scale was used and adapted by Yadav and Pathak, (2016:735) to evaluate the purchase intention on a five-point Likert scale:

- 1 I will purchase green products for personal use.
- 2 I am willing to purchase green products for personal use.
- 3 I will make an effort to purchase green products.
- 4 I will purchase green products in my next purchase.

The Cronbach's alpha (α) was determined by Yadav and Pathak, (2016:736). to be 0.855 and 0.82 on a successive scale use by Wang, *et al.*, (2019:6). Hence, the scale was valid and a reliable measure. The Average Variance Extracted (AVE) was also determined by Yadav and Pathak, (2016:736) and Wang, *et al.*, (2019:6) to be 0.67, and 0.52, which showed that the scales had convergent validity, therefore justifying the scale used for this study. To make a more statistically robust measure a fourth scale item was added. The scale item was used by Sreen, Purbey, and Sadarangani, (2018:187).

3.9.1.7 Demographics

To measure demography as an independent variable, nominal data scales were used. Nominal data scales allow the researcher to assign a number to observation and each observation cannot have more than one number, examples include categories such as yes or no, pass or fail, male or female (Fife-Schaw, 2006:53). According to Welman, *et al.*, (2005:128), "we can convey that those which we have to assign the same number are the same or similar in respect of the particular variable and that those to which we assign different numbers, fall into different categories of the variable". Thus, this scale was used to measure Gender as an independent variable. Codes 0 and 1 were used to specify gender with 1 = Female and 0 = Male. The intended codes are only for classification and understandability, not that 0 is less than 1 (Prasad, 2015:34). Ordinal scale measurement was used to measure demographic factors like age, education, gender, and income, while race was measured using nominal scale measurement. An ordinal scale organizes and classifies objects according to their degree in an ordered relationship (Dalati, 2018:83). Following these research objectives, all five demographic variables and the 26 items of this study are shown in Appendix B.

3.9.2 Pilot-Testing of the Questionnaire

A pilot-test is the testing of the questionnaire on a small sample of respondents to detect and remove potential problems, thus, as a rule, the questionnaire should not be utilized in a field study with satisfactory pilot testing and should be extensive (Malhotra, 2010:322). The pilot test participants should also be similar to those who will be involved in the real study in relation to topic knowledge, contextual characteristics, and attitudes and behaviour of interest (Malhotra & Birks, 2007:399). Before the questions are administered, participants are informed of the pilot test and their assistance is requested in recognizing words, phrases, guidelines, question flow of the questionnaire that seem confusing, tough to comprehend, and common problem themes across this group is looked for by the researcher (Burns & Veeck, 2017:230). It was recommended that the sample of the pilot study sample should be one-tenth of the sample size projected for the actual research (Brink & Wood, 1998:380). The testing of all characteristic of the questionnaire comprising of content, wording, form, layout, and order is provided using the pilot test (Shukla, 2008:91) and owing to the researcher inability to reproduce the respondent's viewpoint, a pilot test is tremendously valuable (Burns & Veeck, 2017:230).

For this study, a pilot test of the questionnaire was carried out utilizing a small sample from a larger sample group, by distributing the questionnaire to 30 respondents to get their opinion on individual questions in the questionnaire. The problems or concerns and shortcoming of the questionnaire raised by respondents were addressed, to decrease errors and intensification in the validity and reliability of the study.

The length of the questionnaire was considered while conducting the pilot-test to avoid incomplete questionnaires and biased data. The time frame given to complete the questionnaire was 20 minutes, however, some of the respondents were able to complete the questionnaire in less than 10 minutes, hence this was accepted as an acceptable time to complete the questionnaire. After completing the questionnaire, respondents were asked to give feedback on the overall perception of the questionnaire that they had completed. From the pilot test, none of the respondents complained or had experienced any difficulty in answering any of the questions. Also, none of the respondents complained that they did not understand the questions on the questionnaire. Thus, no changes were needed to be done to the research instrument.

3.10 Data Analysis

The questionnaires were sorted, coded, and captured in the Statistical Package for the Social Sciences (SPSS 26) software. This section looks at the various methods employed to analyze the data. Descriptive analytical instruments like mean and standard deviation were used to analyze and describe the respondents' feedback for the sample descriptors and all variables measured in the study. The sample profile section of the findings chapter describes the descriptive analysis of the sample profile questions. Then the reliability and validity of the data were checked before the descriptive analysis of the model variables and the hypothesis testing were presented.

3.10.1 Reliability and Validity Analysis

3.10.1.1 Reliability Testing

Before data analysis, a reliability test was done using the Cronbach alpha coefficient to determine whether the variables measured were consistent and reliable (Tseng & Hung, 2013:178). The primary data must be reliable and significant since the researcher depends on the respondent's opinion (Awan & Raza, 2012:96).

Reliability is used to find similarities in variables that are being measured (Mahmoud, 2018:131). Therefore, if the Cronbach's alpha value is more than the acceptable threshold of 0.7, the research instrument is considered reliable (Chen & Chai, 2010:31, Maichum, Parichatnon & Peng, 2017:332,

Zhao, Geng, Liu, Tao & Xue, 2018:1666). When a scale correctly tests what it intended to test, that result is valid (Welman, *et al.*, 2005:142). Validity is achieved if the research instrument is achieving objectives set out by the researcher (McDaniel & Roger, 2010:253). Heale and Twycross (2015:66) identified the following types of validity.

3.10.1.1 Face Validity

Researchers consider this as an active measure of validity (Bolarinwa, 2015:196), but it is the weakest form of validity (McDaniel & Roger, 2010:253). It assesses the questionnaires in terms of practicability, readability, the constituency of style and structuring, and the simplicity of the language used (Parsian & Dunning, 2009:3). An illustration of a question with a high face validity is the respondent's age.

3.10.1.2 Content Validity

According to Heale and Twycross, (2015:66), content validity wants to see if the measuring tool encompasses all aspects of the variable and that the instrument measures the construct it was meant to measure. It discusses the comprehensiveness and representativeness of the items utilized to make a scale (Hosein, 2012:8). It is recognized when the measurement tool accurately represents a sample of the intended content that is measured (Oosthuizen, *et al.*, 2015:10). It also measures whether items in a scale capture the actual nature of the construct as in the physical world and to assess the content validity of a scale, an initial set of items are collected from previous studies (Hosein, 2012:8). To ensure content validity, the questionnaires were evaluated to test that content accurately assesses all aspects of the research topic, with the quantity and quality of questions first considered by experts and proposed changes, were made (Mirabi, Akbariyeh & Tahmasebifard, 2015:270). To ensure content validity the variables were measured using pre-validated scales. A pre-test was carried out with 30 respondents to test the questionnaire. Questionnaires were also vetted by an experienced researcher, who checked the content of the questionnaire ensuring that all areas of the study were covered.

3.10.1.3 Construct Validity

The purpose of construct validity is to draw a conclusion from test scores being studied (Heale & Twycross, 2015:66). It deals with what the researcher is trying to measure (McDaniel & Roger, 2010:256), and it ensures that the measuring instrument measures the intended construct (Welman *et al.*, 2005:142). It also considers the degree to which a scale measures a theoretical variable of interest, as it seeks agreement between a theoretical concept and a detailed research instrument like a questionnaire. The three steps that should be followed to understand if the study has construct validity are:

1. The hypothetical relationship must be precise.
2. The practical relationship between the measures of the concepts must be researched.

3. The empirical evidence must be understood in terms of how it describes the construct validity of the specific measure being examined (Hosein, 2012:9).

Construct validity is subdivided into two sub-groups, which are discriminant and convergent validity. Discriminant validity signifies the extent to which measures of constructs vary from other construct measures in the same conceptual domain (Hosein, 2012:9). Convergent validity is established by the relationship among “independent measurement procedures” intended to reflect the same or similar constructs (Strauss & Smith, 2009:6).

To examine the constructs of the questionnaire and determine the component elements of each construct the average variance extracted (AVE) was utilized to assess the relationships between variables and to ensure the validity of each of the variables. The acceptable level of AVE was above 0.50 which indicates convergent validity (Dachyar & Banjarnahor, 2017:956). To test for discriminant validity, the square root of a construct’s AVE must be greater than the correlations between the construct and the other constructs in the model (Gu, *et al.*, 2019:8, Ahmad, Zulkurnain & Khairushalimi, 2016:6, Chang & Chen, 2014:1762).

3.10.2 Analysis of the Conceptual Model Variables

Descriptive analysis was carried out on all the items to test the level of respondents’ agreement towards each construct (perceived quality, perceived price, environmental concern, trust in green products, perceived social value and purchase intention).

Composite scores were determined by taking questions that are related to form an individual construct. In this study, five (5) constructs were developed by the researcher and to find the composite scores of each construct, the researcher took an average of the scaled scores obtained from each section.

Owing to the unidimensionality and psychometric properties of all the variables, specific items could be summed up to create a composite score. In a study by Vigar-Ellis, Pitt & Caruana, (2015:88) a scale is confirmed to be unidimensional whereby scores on individual items can be summed to create a composite measure.

3.10.3 Hypothesis Testing

Multiple regression analysis was employed to examine the factors (i.e., independent variables) by which the purchase of organic products can be predicted in the study area. Multiple regression is an extension of the simple linear regression model, where two or more independent variables are employed to predict

the variance in one dependent variable (Wekeza, & Sibanda 2019:6). The multiple regression measurement model is given by the expression.

Purchase Intention = function (perceived quality, perceived price, environmental concern, trust in green products, perceived social value). Thus, the multiple regression model specification is as follows (Equation 3.1).

$$PI = \alpha + PQ_{x1} + PP_{x2} + EC_{x3} + TGP_{x4} + PSC_{x5} + \varepsilon_i \quad 3.1$$

where α is a constant and ε_i is the error margin (Ayodele, *et al.*, 2017:105).

Multivariate analysis using a multiple regression model was used to test the study hypotheses, where changes in the independent variables (perceived quality, perceived price, environmental concern, trust in green products, perceived social value) are predicted to cause changes in the dependent variable (purchase intention). The significance level should be * $p < 0.05$ or *** $p < 0.001$ (Mahmoud, 2018:132, Nia, *et al.*, 2018:4).

To identify the statistical significance of the demographic characteristics to the intention to purchase green products, an analysis of variance (ANOVA) was conducted employing the one-way ANOVA and the significance level was set at $p = 0.05$, * $p < 0.05$, ** $p < 0.01$ and *** $p < 0.001$ (Omar, Nazri, Osman & Ahmad, 2017:71, Lin, & Huang 2012:16). The independent T-test was utilized to test the difference between the demographic factor (gender) and purchase intention, and this was found as an applications test by Huang & Dang (2014:189).

3.11 Ethical Issues

Ethical clearance was applied for and was granted by the University of KwaZulu-Natal Research office before commencing the research. Refer to the ethical clearance approval letter in Appendix C. Information regarding respondents was kept anonymous, and their anonymity and confidentiality guaranteed. The researcher explained the reason for the study to each respondent and that they could withdraw at any given time. An informed consent form was completed by each respondent indicating their consent to participate, shown in Appendix A. Respondents were informed that completing a questionnaire was voluntary.

3.12 Conclusion

This chapter outlined the research design and the approach that this research adopted i.e. causal research to achieve the research purpose and objectives. The study used a snowball sampling method, where thirty-five questionnaires were administered to respondents via e-mail and they were required to recruit

ten respondents each. To address non-response and respondent dropout, each Round two respondents was be asked to forward the questionnaire to two additional respondents on their contact lists. The completed questionnaires were sorted, coded, and analyzed to ascertain the relationship between the dependent and independent variables with findings reported in the next chapter.

CHAPTER FOUR

FINDINGS

4.1 Introduction

This chapter presents the study findings. This study made use of univariate, bivariate and multivariate analyses to address the research objectives. The findings were displayed in the forms of frequency tables and pie charts. This chapter also covers five sections: the respondents' demographic profile, reliability and validity analyses, analyses of the constructs in the study (perceived quality (PQ), perceived price (PP), environmental concern (EC), perceived trust (PE), social value (SV) and purchase intention (PI)), and analysis of relationships for hypothesis testing (multiple linear regression of the impacts of the independent variables on the dependent variables and the influence of demographic variables on purchase intention). The outcome of each hypothesis was also discussed in this chapter.

4.2 Profile of the Sample

This section presents the respondents' demographic profile based on age, race, gender, household income, and level of education. For this study, the snowball sampling technique, with an intended sampling size of 350 was applied. However, 304 questionnaires were returned, with 301 completed questionnaires used for data analysis. Three questionnaires were discarded due to incomplete information.

4.2.1. Age of Respondents

The participants were of mixed age groups. Most respondents were in the age bracket of 26-35 representing 143 respondents (47.5%), as depicted by Table 4.1 and Figure 4.1. The second largest group were the 36-45-year-olds (39.5%). The sample included the largest and most influential consumer age cohorts namely millennials and the generation X group.

Table 4.1. Age Distribution of Respondents

Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
18-25	19	6.3	6.3	6.3
26-35	143	47.5	47.5	53.8
36-45	119	39.5	39.5	93.4
46-55	18	6	6	99.3
Above 55	2	0.7	0.7	100
Total	301	100	100	

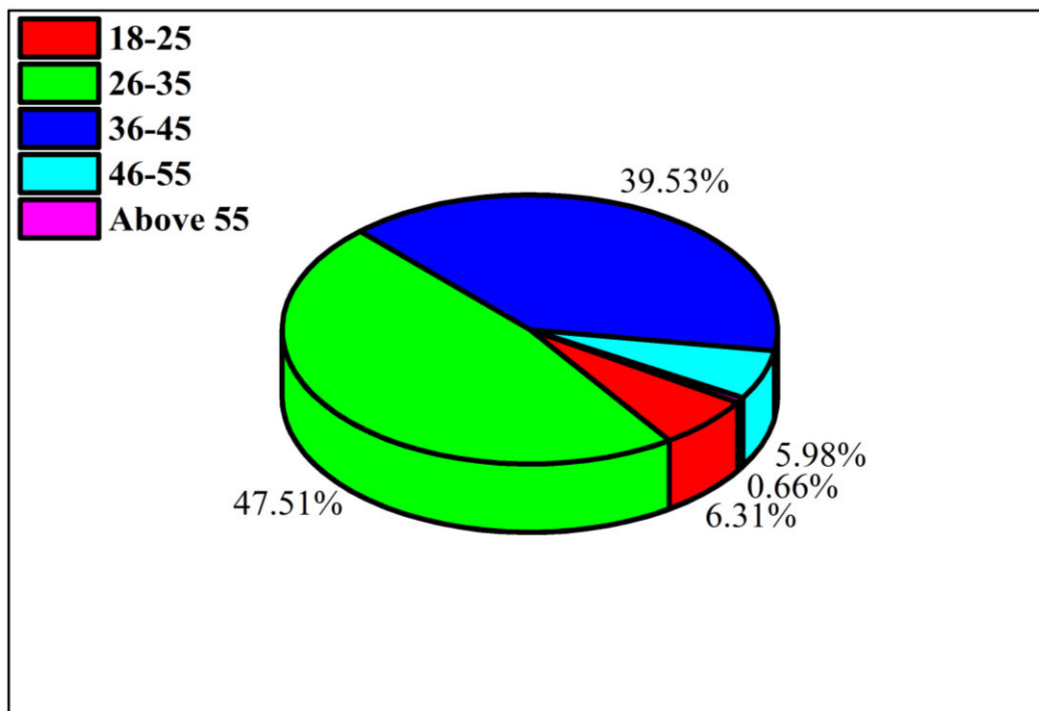


Figure 4.1. Age Distribution of Respondents.

4.2.2. Gender of Respondents

According to StatsSA (2019), South Africa's population is recorded as 58,8 million, comprising of an estimated number of 51% females and 49% males (StatsSA, 2019). This study sample has a balanced gender mix and is indicative of the population with 143 respondents at 47.5% being male and 158 respondents at 52.5% female.

Table 4.2. Gender Distribution of Respondents

Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
Male	143	47.5	47.5	47.5
Female	158	52.5	52.5	100
Total	301	100	100	

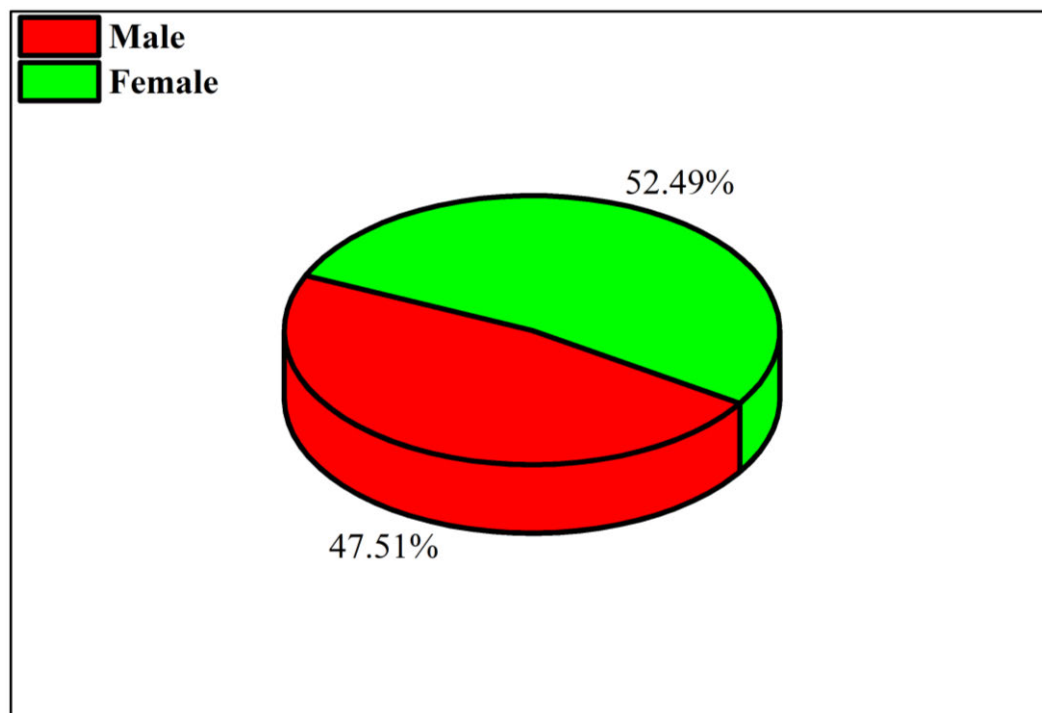


Figure 4.2. Gender Distribution of Respondents.

4.2.3. Respondents' Level of Education

In this study, 40% of the respondents have a postgraduate degree indicating a relatively well-educated sample as depicted in Table 4.3 and Figure 4.3.

Table 4.3. Education Distribution of Respondents

Education				
	Frequency	Percent	Valid Percent	Cumulative Percent
Below Matric	3	1	1	1
Matric	22	7.3	7.3	8.3
Diploma	65	21.6	21.6	29.9
Degree	88	29.2	29.2	59.1
Postgraduate	123	40.9	40.9	100
Total	301	100	100	

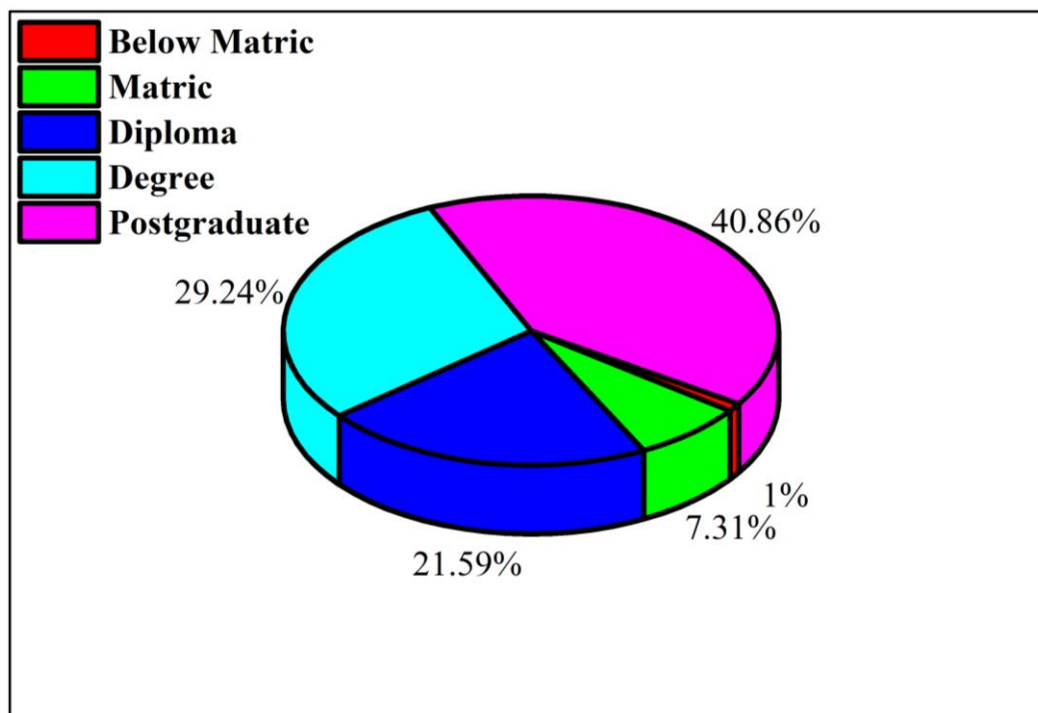


Figure 4.3. Respondents Education Distribution

4.2.4. Income Level of Respondents

Results depicted in Table 4.4 and Figure 4.4 show the respondent's household income level distribution. The majority (almost three-quarters) of respondents earn between R5000 and R50000.

Table 4.4. Income Distribution of Respondents

Income				
	Frequency	Percent	Valid Percent	Cumulative Percent
Below R5000	27	9	9	9
R5000-R25000	112	37.2	37.2	46.2
R25000-R50000	109	36.2	36.2	82.4
Above R50000	53	17.6	17.6	100
Total	301	100	100	

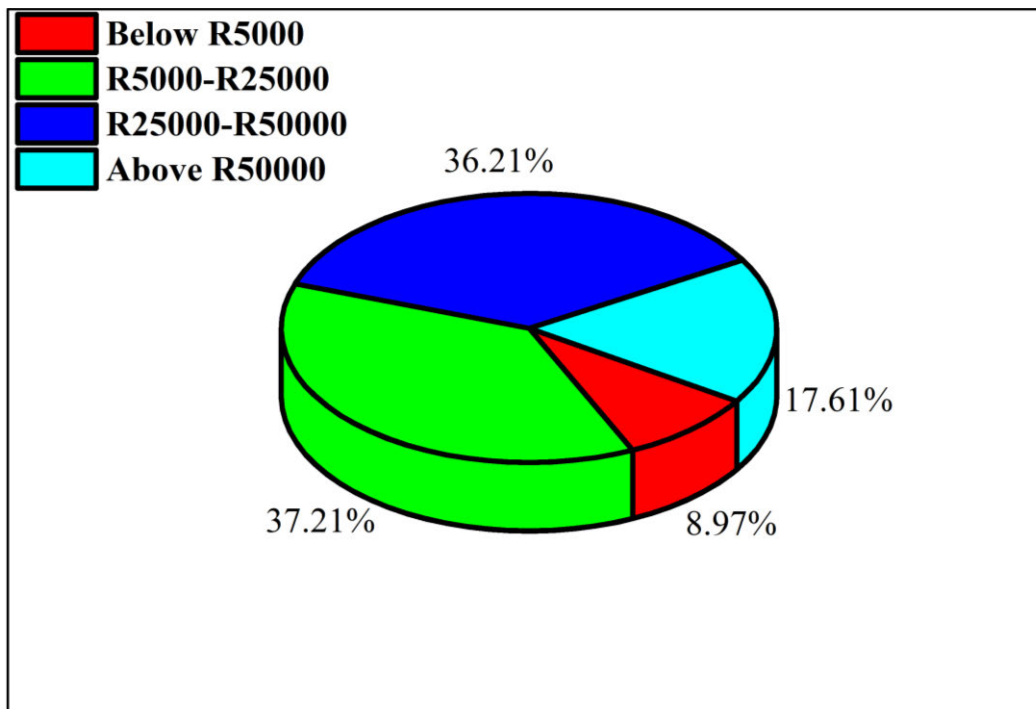


Figure 4.4. Respondents Household Income Distribution.

4.2.5 Race of Respondents

The result in Table 4.5 and Figure 4.5 shows the respondents' race distribution, with 234 African making up most of the respondents (77.7%.) The race distribution of respondents' is reflective of the South Africa population, where 81% are blacks (African) (StatsSA, 2019).

Table 4.5. Race Distribution of Respondents

Race				
	Frequency	Percent	Valid Percent	Cumulative Percent
Caucasian	33	11	11	11
African	234	77.7	77.7	88.7
Indian	18	6	6	94.7
Coloured	16	5.3	5.3	100
Total	301	100	100	

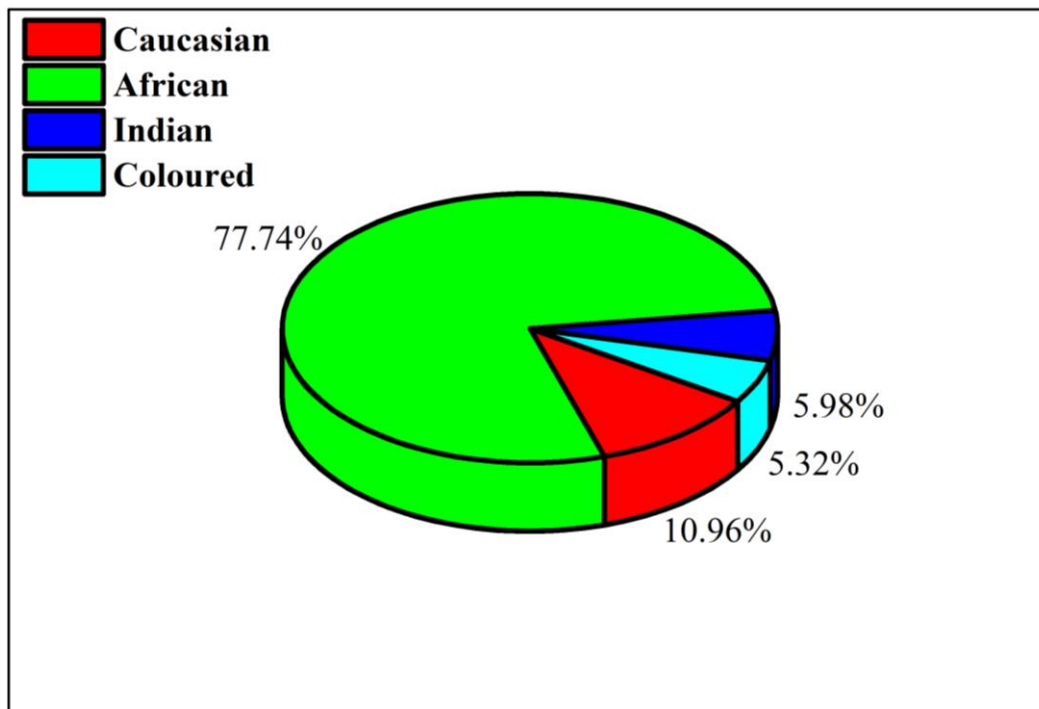


Figure 4.5. Respondents' Race Distribution.

4.3 Reliability and Validity

To measure the degree of reliability between multiple measurements of variables, the reliability test was carried out using Cronbach's alpha as an analytical measure to evaluate the complete scale consistency (Taber, 2018:1267). Based on the collected data in Table 4.6, the Cronbach's alpha values of all constructs ranged from 0.7593-0.9123. The determined Cronbach's alpha values for all constructs

were above the recommended threshold of 0.7 and hence all the constructs in this study represented acceptable reliability and internally consistent (Paul, *et al.*, 2016:127).

Table 4.6. Results of Reliability and Validity Tests

Constructs	Cronbach's α	Average Variance Extracted (AVE)	Composite Reliability (CR)	Square Root of AVE
PQ	0.7593	0.5339	0.8203	0.7307
PP	0.9123	0.754	0.9245	0.8683
PT	0.7924	0.4709	0.7795	0.6862
EC	0.8111	0.544	0.8559	0.7376
SV	0.8927	0.6465	0.8796	0.804
PI	0.9045	0.6284	0.8711	0.7927

Note: **PQ** = Perceive Quality, **PP** = Perceived Price, **EC** = Environmental Concern, **PT** = Perceived Trust, **SV** = Social Value and **PI** = Purchase Intention.

The composite reliability (CR) shows the internal consistency of the constructs, which is used to test for convergent validity (Zhang, Fan, Zhang & Zhang, 2019:11). All the variables had composite reliability (CR) of above 0.70 (0.7795-0.9245) and above the recommended threshold of 0.7 signifying that the observed variables have high convergent validity and good reliability (Jaiswal & Kant, 2018:65).

To further determine the convergent validity of the variables, the AVE was utilized as recommended by Maichum, *et al.*, (2017:5). The AVE of the constructs ranged from 0.4709-0.7540, which were higher than the recommended level of 0.5 (Biswas & Roy, 2016:213) except for perceived trust with an AVE value of 0.4709. Fornell and Larcker (1981:47) indicate that if the AVE was less than 0.5, but the composite reliability was higher than 0.6, then the convergent validity of the construct was still adequate.

To satisfy the condition for discriminant validity, the square root of a construct's AVE must be greater than the correlations between the construct and the other constructs in the model (Gu, *et al.*, 2019:8, Ahmad, *et al.*, 2016:6, Chang & Chen, 2014:1762). As observed in Table 4.7, there is adequate

discriminant validity between constructs, as the square roots of all the constructs on the diagonal were greater than the correlations among constructs. Hence, the discriminant validity of the measurement was accepted.

Table 4.7. Correlations and AVE Square Roots of the Constructs.

	PQ	PP	PT	EC	SV	PI
PQ	0.731					
PP	-0.198	0.868				
PT	0.559	-0.234	0.686			
EC	0.132	0.137	0.294	0.738		
SV	0.403	-0.316	0.509	0.24	0.804	
PI	0.413	-0.203	0.538	0.427	0.477	0.793

NOTE: Numbers in bold are the square root of the AVE

4.4 Analysis of the Variables in the Conceptual Model

4.4.1 Purchase Intention

The dependent variable in this study was the consumer's intention to purchase a green product. The table below gives an overview of the level of agreement to the items of purchase intention.

Table 4.8 Level of Agreement (Purchase Intention)

Level of Agreement								
Items	N Valid	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	STD DEV
I will purchase green products for personal use	301	0.7	1.7	13	57.1	27.9	4.1	0.723
I am willing to purchase green products for personal use		2.7	3.3	34	41.2	18.6	4.1	0.723
I will make an effort to purchase green products		1	4.3	19	48.8	26.6	3.96	0.849
Green products help me feel accepted		0.7	5.3	22	51.2	20.9	3.86	0.827

SD = Strongly Disagree; **D** = Disagree; **N** = Neutral; **A** = Agree; **SA** = Strongly Agree, **N** = 301, **STD DEV** = Standard Deviation

As seen in the table above, the majority (85%) of the total respondents agreed to some extent to the statement 'I will purchase green products for personal use' as opposed to the 2.4% that disagree to some

extent. Furthermore, 75.4% of the respondents also agreed to some extent with the statement, 'I will make an effort to purchase green products. Respondents also responded to the statement 'Green products help me feel accepted', with 72.1% of the total respondents agree to the statement as opposed to 6% who disagreed or strongly disagreed. It was also interesting to note that 22% of the respondents neither agreed nor disagreed. Further 59.8% of respondents agreed to the statement, 'I am willing to purchase green products for personal use' while 34% of the respondents were neutral, which was also interesting to note. The mean scores ranged from 3.86 to 4.10, indicating a high level of intention towards the purchasing of green products. The low standard deviation of 0.723- 0.849 also indicates that respondents responded similarly.

Owing to the unidimensionality and psychometric properties of all the variables, individual items could be summed to create a composite score. Using a similar analysis to that used by Vigar-Ellis, *et al*, (2015:88) a scale is confirmed to be unidimensional whereby scores on individual items can be summed to produce a composite measure. Also, when a composite scale score is used from item responses, it is assumed that the scale is dominantly unidimensional (Slocum-Gori & Zumbo, 2011:443). Therefore, to find the composite scores of each construct, the researcher took an average of the item means for each variable.

The composite mean score for purchase intention was 3.90 which skewed towards agreement, with a standard deviation of 0.730. This indicated that this sample of South Africa has a high intention to purchase green products.

4.4.2 Perceived Quality

An important aspect of this study was to investigate whether respondents perceive green products to be inferior or lower quality than non-green products.

Table 4.9. Level of Agreement (Perceived Quality).

Level of Agreement								
Items	N Valid	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	STD DEV
The quality of the green products is regarded as the benchmark	301	3.0	4.0	22.6	46.2	24.3	3.847	0.936
The quality of the green products is reliable		2.0	3.7	21.6	54.2	18.6	3.837	0.839
The quality of green products is excellent		1.7	5.0	26.9	46.2	20.3	3.784	0.881
The quality of the green products is professional		1.7	3.0	31.6	49.2	14.6	3.721	0.809
Green products are durable		3.0	6.3	28.6	48.2	14.0	3.638	0.905

SD = Strongly Disagree, **D** = Disagree, **N** = Neutral, **A** = Agree, **SA** = Strongly Agree, **N** = 301, **STD DEV** = Standard Deviation.

Overall, most of the respondents (62.2% - 72.8%) in the study area had a positive perception of the quality of green products. As shown in Table 4.9, most of the respondents (72.8%, n = 219), agreed or strongly agreed that green products are reliable, as opposed to 5.7% who disagreed to some extent. Additionally, most of the respondents agreed that the quality of green products is the best benchmark (70.5%), excellent (66.5%), professional (63.8%), and durable (62.2%). The Likert scale used in this study ranged from 1 to 5, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree. The means for the quality of green product items skewed towards agreed for all the statements (3.64 - 3.85) with a low standard deviation of 0.809-0.936 which indicates that respondents responded similarly.

The composite mean score value was 3.77, which is skewed towards agreed, with a low standard deviation (0.625) shows that respondents agreed with the overall perception about green products. It can be concluded that this sample of South Africa consumers perceives green products to be of high quality, hence the negative perception of green products having inferior quality (Lim, *et al.*, 2013:41, Nia, *et al.*, 2018:3) does not seem to be evident in this South Africa sample.

4.4.3 Perceived Price

Another aspect of this study was to investigate whether respondents perceived green products to be more expensive than non-green products.

Table 4.10 Level of Agreement (Perceived Price)

Level of Agreement								
Items	N Valid	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	STD DEV
The price of green products is higher than that of corresponding traditional products	301	2.3	15.9	19.6	40.5	21.6	3.631	1.062
Green products are costly		3.0	18.3	17.9	37.9	22.9	3.595	1.117
Green products are very expensive		3.7	17.9	19.9	36.5	21.9	3.551	1.126
The price of green products is higher than expected		2.7	23.6	22.9	36.5	14.3	3.362	1.073

SD = Strongly Disagree, **D** = disagree, **N** = neutral; **A** = Agree, **SA** = Strongly Agree, **N** = 301, **STD DEV** = Standard Deviation.

As shown in Table 4.10, most of the respondents (62.1%, n = 187), agreed or strongly agreed that the price of green products is higher than that of corresponding traditional products, as opposed to the 18.2% who disagreed. Furthermore, most of the respondents agreed to some extent that green products are costly (60.8%), green products are very expensive (58.4%), and that the price of green products is higher than expected (50.8%). The means for the perceptions of the price of green products skewed marginally towards agreed (3.55 - 3.63). However, the relatively high standard deviations indicate less agreement amongst respondents' responses compared to the responses for the quality perceptions.

The composite mean score was 3.53 which indicates that respondents were close to neutral on their perception of price. The relatively high standard deviation (0.974) indicated that there was a lot less consistency of opinion amongst respondents on this variable.

It can be concluded that there was marginal agreement that green product prices are high but there was less agreement in the sample on this thus there are a fair number of respondents who disagreed that green products are more expensive.

4.4.4 Perceived Trust

Perceived trust was another aspect of this study used to determine the extent of trust in green products and whether this impacts green purchase intention.

Table 4.11. Level of Agreement (Perceived Trust)

Level of Agreement								
Items	N Valid	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	STD DEV
I believe that green products environmental images are generally reliable	301	0.3	4.0	27.2	51.5	16.9	3.807	0.772
I think that green products environmental performance is generally dependable		1.0	3.3	29.9	54.5	11.3	3.718	0.746
Overall, I believe that green products environmental claims are trustworthy		1.0	5.0	34.2	47.2	12.6	3.654	0.8
Green products environmental performance meets any expectations		0.3	8.6	31.6	49.2	10.3	3.605	0.8

SD = Strongly Disagree, **D** = Disagree, **N** = Neutral, **A** = Agree, **SA** = Strongly Agree, **N** = 301, **STD DEV** = Standard Deviation.

As shown in Table 4.11, 68.4% (n = 206) of the total respondents agreed to some extent that green products' environmental images are generally reliable with only 4.3% disagreeing with the statement. Also, the majority of the respondents agreed to some extent that green products environmental performance is generally dependable (65.8%), 59.8% of respondents agreed to the statement, 'Overall, I believe that green products environmental claims are trustworthy' and 59.5% agreed that Green products environmental performance meets their expectations. The means of the responses tilted towards agreed (3.6 - 3.8) and the standard deviation was low, indicating that the negative perception that green products could not be trusted due to greenwashing (Chen & Chang, 2013:490) was generally not evident in this south Africa sample. However, it should be noted that almost a third of the

respondents were neutral on these items and thus did not have clear opinions on the trustworthiness of green products.

The composite mean value was 3.70 which skewed more to agree, with a low standard deviation (0.612). Therefore, the negative perception regarding green products not being trustworthy was not evident in this South Africa sample.

4.4.5 Environmental Concern

Another aspect of this study was to determine consumer's concern about environmental problems and their willingness to solve these problems.

Table 4.12. Level of Agreement (Environmental Concern).

Level of Agreement								
Items	N Valid	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	STD DEV
Major social changes are necessary to protect the natural environment	301	0.3	1.0	8.6	29.9	60.1	4.485	0.724
Anti-pollution laws should be enforced more strongly		0.7	0.7	9.6	29.2	59.8	4.468	0.75
I am concerned about the environment		0.3	4.0	11.3	31.6	52.8	4.325	0.853
Major political change is necessary to protect the natural environment		1.7	3.7	14.3	30.2	50.2	4.236	0.942
I would be willing to reduce my consumption to help protect the environment		2.0	4.7	15.0	37.2	41.2	4.11	0.958

SD = Strongly Disagree, **D** = Disagree, **N** = Neutral, **A** = Agree, **SA** = Strongly Agree, **N** = 301, **STD DEV** = Standard Deviation.

Overall, most of the respondents (78.4% - 90%) in the study area had a high concern for the environment. As shown in Table 4.12, many of the respondents (90%, n = 271), agreed to some extent that major social changes are necessary to protect the natural environment, as opposed to the 1.3% who disagreed. Also, most of the respondents agreed to some extent that anti-pollution laws should be enforced more strongly (89%), that they were concerned about the environment (84%), that major political change is necessary to protect the natural environment (80.4%) and that they would be willing to reduce their consumption to help protect the environment (78.4%). The perception of respondents based on environmental concern showed mean scores (4.11 - 4.49) of the responses towards strongly agreed, indicating a high level of concern for the environment. The standard deviation was moderate (0.724 - 0.958), which means that respondents have a high level of concern for the environment. The composite mean score for environmental concern was 4.32, with a low standard deviation of 0.642. This means that there is a high level of concern for the environment amongst South African respondents according to the findings in this study and that there is a consistency of opinion amongst respondents.

4.4.6 Social Value of Green Products

Another important aspect of this study was to determine the extent to which purchasing green products are perceived to hold social value.

Table 4.13. Level of Agreement (Social Value).

Level of Agreement								
Items	N Valid	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	STD DEV
Green products make a good impression on other people	301	5.3	15.0	33.9	34.2	11.6	3.319	1.035
Green products give their owner social approval		5.0	13.6	38.5	34.5	8.3	3.276	0.97
Green products improve the way I am perceived		7.6	15.9	41.9	27.6	7.0	3.10	1.006
Green products help me feel accepted		9.6	18.3	39.2	22.3	10.6	3.06	1.103

SD = Strongly Disagree, **D** = Disagree, **N** = Neutral, **A** = Agree, **SA** = Strongly Agree, **N** = 301, **STD DEV** = Standard Deviation.

As shown in Table 4.13, 27.9% of the respondents, disagreed or strongly disagreed that green products help them feel accepted, as opposed to the 32.9% that agreed to some extent, and 39.2% of the neutral respondents. Thus, the largest percentage of respondents were not sure whether green products help them feel accepted. Thirty-nine percent of the total respondents were neutral that green products help me feel accepted and another 33.9% of the total respondents were neutral to green products making a good impression on other people. Additionally, 41.9% were neutral to the statement that green products improve the way they are perceived while only 34.6% agreed to some extent. The findings also show that 42.8% of the respondents agreed to some extent that green products give their owner social approval as opposed to 38.5% that were neutral. This high percentage of neutrality means that respondents were not sure, possibly as they have not thought about green products in relation to social value. The perception of respondents based on social value indicates that the mean scores (3.06 - 3.32) showed marginal agreement although they are more reflective of neutrality. The standard deviations show a lot of variation in responses, indicating that respondents were not in agreement with their responses.

The composite mean score for social value was 3.19 with a standard deviation of 0.896 which was skewed to neutral. Respondents were mainly neutral here, possibly unsure about how green products give social value or are unsure of what is meant by social value.

4.5 Hypothesis Testing

In this section of the findings, the study determines the independent variables (perceived quality, perceived price, perceived trust, environmental and social value) ability to predict the dependent variable (purchase intention). Multiple regression analysis was conducted to determine the relative effects of the independent variables on the dependent variable.

4.5.1 Normality and Multicollinearity

To guarantee that the assumptions of normality, linearity, multicollinearity, and homoscedasticity were not violated, preliminary assessments were conducted before multiple linear regression could be conducted (Muda, Mohd & Hassan, 2016:296).

Univariate normality was investigated utilizing the skewness-kurtosis results shown from SPSS software. For skewness results, all items should have a skewness value of less than 3, and for the psychometric purpose, the values of skewness between -2 and +2 (Alalwan, 2018:70, Muzaffar, 2016:51, Kline, 2015:60). Table 4.14 shows the values of skewness according to which perceived quality, perceived price, perceived trust, environmental concern, social value, and purchase intention

lay between -0.130 and -1.047 respectively. The factors of skewness indicated that the distribution of the variables was between +2 and -2 limits and the basic assumption of parametric testing was achieved (Alharthey, 2019:51, Younus, Rasheed & Zia, 2015:11, Muzaffar, 2016:51).

Table 4.14 Normality

	N	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Std. Error
Perceived Quality	301	3.77	0.625	-0.311	0.140
Perceived Price	301	3.53	0.974	-0.458	0.140
Perceived Trust	301	3.70	0.612	-0.130	0.140
Environmental Concern	301	4.32	0.642	-1.047	0.140
Social Value	301	3.19	0.896	-0.258	0.140
Purchase Intention	301	3.90	0.730	-0.622	0.140
Valid N (listwise)	301				

The multicollinearity test was carried out to determine if the descriptive independent variables in a multiple regression model were highly linearly correlated (Daoud, 2017:2, Lomboan, 2017:108). This test determines the Variable Inflation Factor (VIF) and Tolerance. When VIF was greater than 10 and Tolerance was less than 0.1 then multicollinearity was specified (Pallant, 2010:158, Alam, Lin, Ahmad, Omar & Ali, 2019:90, Biswas & Roy, 2016:213). As observed in Table 4.14, the tolerance values were greater than 0.1 and the VIF values were also less than 10 for all independent variables. Based on these results, it is concluded that the study was free from multicollinearity.

Table 4.15. Multiple Regression Model

Model Summary^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.657 ^a	0.432	0.422	0.555	0.432	44.893	5	295	0.000
a. Predictors: (Constant), Social Value, Environmental Concern, Perceived Price, Perceived Quality, Perceived Trust									
b. Dependent Variable: Purchase Intention									
Coefficients^a									
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
		B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	0.470	0.313		1.499	0.135			
	Perceived Quality	0.159	0.063	0.136	2.533	0.012	0.666	1.502	
	Perceived Price	-0.074	0.036	-0.098	-2.049	0.041	0.834	1.199	
	Perceived Trust	0.302	0.070	0.253	4.309	0.000	0.558	1.791	
	Environmental Concern	0.344	0.054	0.303	6.330	0.000	0.841	1.189	
	Social Value	0.154	0.044	0.189	3.515	0.001	0.663	1.509	

a. Dependent Variable: Purchase Intention.

4.5.2 Multiple Linear Regression

Multiple linear regression was used to investigate the effects of perceived quality, perceived price, perceived trust, environmental concern, and social value on purchase intention. As is evident in Table 4.16, the results show a significant adjusted R square value of 0.422 ($F = 44.8$; $p < 0.01$) indicating that the independent variables explained 42.2% of the dependent variable variance quality (std B = 0.136, $p < 0.05$), perceived price (std B = - 0.098, $p < 0.05$), perceived trust (std B = 0.253, $p < 0.001$), environmental concern (std B = 0.303, $p < 0.001$) and social value (B = 0.189, $p < 0.05$). Therefore, there was a positive significant association between perceived quality, perceived trust, environmental concern, social value, and purchase intention, while there was a negative significant relationship between perceived price and purchase intention. The negative beta value for price indicates that the more respondents perceived green products to be expensive, the less likely they were to plan to purchase them. As observed from the standardized coefficient of beta values in the above table, environmental concern has the highest value, followed by the perceived trust. This was indicative of environmental concern being the greatest predictor of purchase intention followed by the perceived trust. From the beta values presented above, environmental concern and perceived trust were far better

predictors of purchase intention than social value and perceived quality, with perceived price having a negative beta value, however, all of the variables were significant predictors. The following hypotheses were therefore accepted H₁, H₂, H₃, H₄, H₅ as depicted in Table 4.19.

4.6 Influence of Demographics on Purchase Intention.

ANOVA is a statistical method concerned with assessing means of several samples, which is assumed as an augmentation of the independent samples T-test for two independent samples to more than two groups and the main purpose is to test for the significant difference between class means, done by the analysis of the variance (Ostertagova & Ostertag, 2013:256). The one-way ANOVA was employed to compare the means score of multiple groups of age, education, income, and race against the intention to purchase green products (Huang & Dang, 2014:192). The post hoc comparison was utilized to test the significant difference between group means calculated after running an ANOVA that shows the overall difference (Ostertagova & Ostertag, 2013:257). The post-hoc comparison was conducted using the Tukey HSD test.

In this section of the findings, the study sought to assess the impact of demographics on the dependent variable. An ANOVA was performed with the various demographic factors as the independent variables and purchase intention as the dependent variable. Levene's test of homogeneity of variance was greater than 0.05 which shows that the variance was homogeneous, and the requisite assumption for conducting ANOVA was met (Pusterla, 2016:300).

Table 4.16 One Way Analysis of Variance Results with Purchase Intention.

One Way Analysis of Variance Results with Purchase Intention						
		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	2.116	4	0.529	0.993	0.412
	Within Groups	157.701	296	0.533		
	Total	159.816	300			
Education	Between Groups	4.075	4	1.019	1.936	0.104
	Within Groups	155.742	296	0.526		
	Total	159.816	300			
Income	Between Groups	1.153	3	0.384	0.719	0.541
	Within Groups	158.663	297	0.534		
	Total	159.816	300			
Race	Between Groups	3.654	3	1.218	2.316	0.076
	Within Groups	156.163	297	0.526		
	Total	159.816	300			

Note: $p < 0.05$

The results of this study showed no significant differences between the groups for any of the demographics factors above in terms of purchase intention as depicted in Table 4.16. Thus, purchase intention for green products in this South African sample is not influenced by age, education, income, or race.

Table 4.17 Independent T-Test.

Group Statistics										
Gender		N	Mean	Std. Deviation	Std. Error Mean					
Purchase	Male	143	3.88	0.783	0.065					
Intention	Female	158	3.92	0.681	0.054					
Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Purchase Intention	Equal variances assumed	0.563	0.454	-0.488	299	0.626	-0.041	0.084	-0.207	0.125
	Equal variances not assumed			-0.485	282.989	0.628	-0.041	0.085	-0.208	0.126

Note: $p < 0.05$.

As shown in Table 4.17 above, the group statistics tables showed that the respondents were made up of 143 male and 158 female respondents. The mean value of the intention to purchase green products by female respondents was 3.92 compared to 3.88 for male respondents. The standard deviation for females was slightly lower (0.054) than for males (0.065).

Based on a 95% confidence interval, the results of the independent samples T-test in Table 4.17 showed that there was no statistically significant difference between the genders' purchase intention. The variance was not heterogeneous, as the p-value of Levene's Test for gender (0.454) was greater than 0.05. According to the rule of thumb, the 2-tailed significance that is less than 0.05 is suggestive that the difference is statistically significant (Wee, *et al.*, 2014:391), which is inconsistent with the result in Table 4.18, which shows that the value of 2-tailed (0.626) was greater than 0.05. Hence, the difference is not statistically significant.

Table 4.18 Summary of Demographic Factors Hypothesis Result.

Hypotheses	Statistical Test	Significant Value	Result
Demographic factor age significantly affect green purchase intention.	ANOVA	0.412	Not Significant
Demographic factor gender significantly affects green purchase intention.	Independent T-test	0.454	Not Significant
Demographic factor race significantly affects green purchase intention.	ANOVA	0.076	Not Significant
Demographic factor education significantly affects green purchase intention.	ANOVA	0.104	Not Significant
Demographic factor income significantly affects green purchase intention.	ANOVA	0.541	Not Significant

Table 4.19. Hypotheses Testing

Hypotheses		Outcome Accepted/Not Accepted
H₁	Consumers' perceptions of green product quality significantly impact their green purchase intention	Accepted
H₂	Consumers' perceptions of green product price significantly impact their green purchase intention	Accepted
H₃	Consumers' trust in green products significantly impacts their green purchase intention	Accepted
H₄	Consumers' environmental concern significantly impacts green purchase intention	Accepted
H₅	The extent to which purchasing green products is perceived to have social value significantly impacts green purchase intention	Accepted
H_{6a}	Demographic factor (age) significantly affect green purchase intention	Not Accepted
H_{6b}	Demographic factor (education) significantly affect green purchase intention.	Not Accepted
H_{6c}	Demographic factor (education) significantly affect green purchase intention	Not Accepted
H_{6d}	Demographic factor (income) significantly affect green purchase intention	Not Accepted
H_{6e}	Demographic factor (race) significantly affect green purchase intention.	Not Accepted

Thus, purchase intention for green products in this South African sample was not influenced by demographic factors and thus H₆ was not accepted.

4.7 Conclusion

The results of this study were presented using tables that showed descriptive statistics, frequencies, valid percentages, the means, and standard deviations to describe the levels of agreement on the independent and dependent variables. The negative perception that the quality of the green products is inferior (Nia, *et al.*, 2018:3) was not evident in this sample. The third negative perception investigated in the research was the lack of trustworthiness of environmentally friendly products as indicated by Chen & Chang (2013:490). Therefore, the negative perception regarding green products not being trustworthy is not evident in this South Africa sample. The sample of this study had a high level of intention to purchase green products and as well as a high level of concern for the environment. The

Social value variable had a lot of neutrality in responses. This could mean that this South African sample is not sure how green products give social value or unsure of what was meant by social value. All five independent variables (perceived quality, perceived price, perceived trust, environmental concern, and social value) had a significant influence on the consumer intention to purchase green products, however, environmental concern is the greatest predictor of intention. An ANOVA and independent samples t-test was used to test the effect of demographic factors on the intention to purchase green products. It was found that none of the demographic factors significantly affect purchase intentions.

The next chapter provides a discussion of the findings from this section using existing literature, seeks to explain the implication of the results for the different objectives of the study and seeks to explain the implication of the results for the different objectives of the study.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Environmental protection has become a social responsibility not only for businesses but consumers as well. Consumer behaviour towards environmentally friendly products witnessed a positive change since the 1970s due to the improved level of environmental awareness (Delafrooz, *et al.*, 2014:2, Lim, *et al.*, 2013:36). This is driven by numerous factors such as improved media coverage, improved environmental problem awareness, increased pressure group activities, strict national and international legislation. Hence, consumers are now more worried about their behaviour and their influence on the environment (Kalafatis, *et al.*, 1999:441). However various negative perceptions such as that green products are of inferior quality (Lim, *et al.*, 2013:41, Nia, *et al.*, 2018:3), are high priced (Nam, *et al.*, 2017:5) and cannot be trusted (Chen & Chang, 2013:490) exist, while theory and literature predict that environmental concern, social value, and demographic factors influence green product purchase intention.

This chapter covers the discussion and interpretation of the findings of the study. It presents a discussion of the findings associated with the study objectives. The findings are compared with literature from previous studies relating to consumers' intention and factors influencing consumers' intentions to purchase green products in South Africa. Conclusions are drawn from the findings and discussion and recommendations are given to provide guidelines for marketers with a better understanding of consumer green behaviour intentions.

5.2 Discussion and Conclusion to the Research Objectives.

5.2.1 Objective 1: To determine if consumers perceive the green products to be inferior or lower quality than the non-green products and whether this impacts their green purchase intention.

Perceived quality is a consumer's assessment of a product that meets an individual's expectancy (Vo & Nguyen, 2015:52). The high quality of a product could result in the product being easily accepted by consumers and could lead to retailer and wholesaler satisfaction (Chang & Fong, 2010:2838). However, some studies have found consumers to perceive green product quality to be inferior or low quality (Nia, *et al.*, 2018:3) and this may be a barrier to green behaviour.

The perceived quality variable had item means ranging from 3.638 to 3.847 and the percentage of respondents who agreed to some extent with the statements about green products having a high quality ranged from 62.2% to 72.8%. The composite mean for quality was 3.77 indicating agreement that green

products have good quality. The standard deviations for the items ranged from 0.809 to 0.936 and the composite score standard deviation was 0.625, which was low was indicative of respondents agreeing with the mean perception about the quality of eco-friendly products. Therefore, the negative perception that green products are of low or inferior quality was not evident in this sample of South Africa respondents thus not supporting the findings of (Lim, *et al.*, 2013:41, Nia, *et al.*, 2018:3)

The study also sought to establish whether there is an association between perceived quality and consumers intention to purchase green products. From the findings, there was a positive relationship between the dependent and independent variables as ($B = 0.136$, $p < 0.05$), indicating that perceived quality does predict intention to purchase green products. This finding support results from other studies where the quality of green products was found to positively influence the intention of consumers to purchase green products (Yang, 2017:165, Lomboan, 2017:110, Saleem, *et al.*, 2015:25, Gil & Jacob, 2018:313).

In this study purchase intention was relatively high, with a 3.9 mean and low standard deviation of 0.73, indicating that these South Africa consumers at least intend to be green consumers. The perception of perceived quality increases consumers' purchase intention., Quality is taken into consideration by consumers when deciding if a product high-quality is suitable and meets their needs or not (Saleem, *et al.*, 2015:22). The quality of the product was assessed in terms of its durability, reliability, professionalism, excellence, and being the best benchmark. In conclusion, the comparatively high levels of perceived quality significantly predict the high levels of intention. Hence, when consumers perceive higher product quality, they tend to perceive better value for the product, and this leads to a stronger purchase intention. Therefore, marketers should provide target consumers with more information on green products' quality to draw consumers' attention to these features thus associating the product with quality and ultimately increasing their purchase intention.

5.2.2 Objective 2: To determine if green products are perceived to be more expensive than non-green products and whether this impacts green purchase intention.

According to Wang and Chen, (2016:98), price is what is given up acquiring a service or a product. Overall, price is an element of the marketing mix that generates income for marketers and is used as an indicator of quality which the consumer attaches to the product that they purchase (Chekima, *et al.*, 2016:3440).

The items relating to the price variable had means ranging from 3.362 to 3.631 and the percentage of respondents who agreed to some extent with the statements about green products having a high price ranged from 50.8% to 62.1%. The composite mean for the perceived price variable was 3.53, indicating

marginal agreement that green products are priced high. The standard deviations for these items were 1.062 to 1.126 and for the composite was 0.974, which were all fairly high being close to or above 1, indicating that although there was marginal agreement that green products are high priced, there was also a lot of variances in responses and on the average 1 in 5 respondents who did not agree that prices are high.

It was also established from this study that there was a negative significant relationship between perceived price and purchase intention with a beta value ($B = -0.098$, $p < 0.05$). The result showed that respondents were less willing to purchase a green product if the price of the green product was perceived to be high, expensive, or costly. Also, the negative beta value for price indicates that the more respondents perceived green products to be expensive, the less likely they were to purchase them. The effect was however small, and the price had the least impact on intention.

The results combined with the univariate analysis of the price and purchase intention variables showed that the purchase intentions of the respondents in this study were relatively high. The only marginal perception that green products are priced high and the relatively high variance in responses on the price items is likely to explain the low predictive power of price on intentions. While marketers need to be concerned about perceptions that green products are priced high because price does significantly affect intentions, the effect is however very low and other factors are better predictors of intentions. Thus, from a green product marketing perspective, the added costs in ensuring a product is truly environmentally friendly or certifying it as green, is likely to be something difficult to change. The good news is that there are other, more powerful predictors of intentions than price that the marketer could use to try to increase purchase intentions such as emphasizing the high quality of green products.

The findings from this study are contrary to findings from Anvar and Venter (2014:192) and Nirushan, (2017:48) studies, who found perceived price to positively influence purchase intention and the negative influence of price on purchase intention will not result in a purchase decision. The negative relationship between perceived price and purchase intention could be attributed to the level of consumer greenness, with consumers having a low degree of greenness often viewing price as an obstruction for the consumption of green products (Laroche, *et al.*, 2001:513). This view is also supported by Young *et al.*, (2010:25) and Gleim *et al.*, (2013:48), who identified price as a blockage to green purchase behaviour as it decreases the effect of green values and attitude in making a purchase decision. It can be concluded that there is a marginal agreement that green product prices are high but there is less agreement in the sample on this thus there are a fair number of respondents who disagree that green products are more expensive. Price does influence purchase intention but in a negative way. Therefore, businesses should focus consumer attention on quality rather than the price of green products partly to justify the higher

prices but also to encourage consumer consideration of value rather than price. This should reduce the negative impact of high prices on intention. However, if the prices of these products are too high, marketers must realize that consumers' purchase intention will decline.

5.2.3 Objective 3: To determine the extent of trust in green products and whether this impacts green purchase.

According to Lal *et al.*, (2017:712) a product must induce trust to create a green purchase. This is because a purchase decision, as well as purchase intention, are influenced by the consumers' trust. It is the willingness to depend on another party based on prospects resulting from that party's ability, reliability, and goodwill (Cheung, *et al.*, 2015:235). However, there is a negative perception that green products could not be trusted due to greenwashing (Chen & Chang, 2013:490).

An aspect of this study was to investigate if green products are perceived to be less trustworthy than non-green products and whether this negatively impacts green purchase intention. The composite score mean was 3.70 indicating agreement that green products can be trusted and the standard deviation of the composite score (0.612), was low indicating limited variance in the perceptions of respondents. Thus, this sample perceived green product to be trustworthy.

A positive relationship between perceived trust and purchase intention was observed in this study. The beta value ($B = 0.253$) and p-value ($p = 0.000$) showed a significant positive relationship between perceived trust and green product purchase intention at $p < 0.01$. The findings from this study support previous studies by Wang, *et al.*, (2019:10), Dehghanan and Bakhshandeh, (2014:1351) and Rizwan, *et al.*, (2013:96) who also found that trust attributes positively and significantly affect the green purchasing intention.

Perceived Trust plays an important role in the consumers' intention to purchase green products, thus, they will only purchase green products if they have trust in green products. As discussed in the literature review, perceived trust is the faith and benevolence of customers. From the findings of this study, it is evident that trust helps consumers to overcome the uncertainty perception and the risk involved in the intention to purchase green products (Lal, Sharma & Sharma, 2017:712).

In conclusion, the findings indicate that perceived trust is a determinant of consumers' intention and consumers with trust for a green product would exhibit a high level of purchase intention. It was interesting to note that trust was the second-best predictor of purchase intention and also the composite mean for perceived trust was very high and skewed towards agreed. All negative perceptions associated with trust were not evident in this South African sample. Therefore, businesses should endeavour to give out true environmental statements of their products, to improve consumer trust further and thus

ultimately their sales and market share. They should also avoid embracing risky greenwashing charges and to mitigate greenwashing, they should make green claims trustworthy. This will contribute to enhanced green product purchasing intention.

5.2.4 Objective 4: To determine the extent of environmental concern and whether this impacts green purchase intention.

Environmental concern represents the general concern of individuals towards the environment and their level of concern towards issues of the environment (Lin & Huang, 2012:13). It is seen as a positive attitude towards protecting the environment or a general attitude with secondary effects on behaviour through behavioural intentions (Setyawan, *et al.*, 2018:147).

South African respondents in this study showed a high level of environmental concern as the composite mean score for environmental concern was 4.32. The standard deviation was also low (0.642), showing limited variance in consumers' environmental concern. Seventy-eight to ninety percent of the respondents strongly agreed to some extent with the environmental concern items indicating a very high environmental concern for green products.

This study also aimed to determine if there was a relationship between environmental concern and purchase intention. The beta value ($B = 0.303$) and p-value ($p = 0.000$) indicated a significant positive relationship between environmental concern and green products purchase intention at $p < 0.01$. The findings of this study supported findings by Khaola, *et al.*, (2014:367), Maichum, *et al.*, (2017:7), and Ahmad and Thyagaraj (2015:883) who found a positive relationship between environmental concern and green purchase intentions. It must be noted also that environmental concern also has the greatest beta value.

Environmental concern was identified by Lee (2008:578) as the second top predictor of purchasing behaviour. According to the findings of the current study, environmental concern was the top predictor for the purchase intention of green products.

Given the above findings, it can be noted that the positive effect of environmental concern on purchase intention made environmental concern to be one of the strongest variables that influence purchase intention. This finding meant that South African consumers show great interest in environmental issues and their concerns affect their purchase intention for the products that they consume. Therefore, manufacturers should increase public awareness on the impact of non-green consumption and benefits of going green on the environment by developing product green marketing concept in terms of product benefit, green technology, green production, and promotion of products with a key focus on concern

for the environment. Also, businesses should integrate environmental impacts into their marketing strategies and represent their environmental performance by their commitments.

5.2.5 Objective 5: To determine the extent to which purchasing green products is perceived to have social value and the impact of this on green purchase intention.

Consumer consumption behaviour is influenced greatly by peers, co-workers, family, and opinion leaders, which depends on product features, consumers degree of susceptibility and groups bullying power, with product benefits being scrutinized by consumers before purchasing it. If the product has high social value, particularly high involvement products, which are usually believed as a symbol of class as other individual perception about the product use meaningfully affects consumers purchasing decision (Rehman & Dost, 2013:104, Suki & Suki, 2015:93).

The composite mean score for social value was 3.19. The mean of the composite score skewed more to neutral. The low standard deviation showed that there was a limited variance in respondents' responses (0.896). South African respondents in this study were uncertain and unsure if social value influences their purchase intention. Although there was some variation in their responses, 49.1% of the respondents were neutral when asked if *green products improve the way I am perceived*. This high percentage of neutrality means that respondents were not sure, possibly because they have not thought about green products in relation to social value.

The mean of the items of social value ranged between 3.06 to 3.32, showing marginal agreement although more reflective of neutrality. The standard deviation showed variation in response, indicating that respondents were not in agreement in their responses.

Results indicated a positive relationship between social value and purchase intention. The beta value ($B = 0.189$) and p-value ($p = 0.001$) indicated a significant positive relationship between social value and green purchase intention at $p < 0.01$. This finding supported findings by Xie & Chaipoo Pirutana, (2014:34), Ayodele *et al.*, (2017:107), Anvar & Venter, (2014:192) and Biswas & Roy, (2015:468), who all found social value to influence consumer green purchase intention.

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In conclusion, respondents were indecisive about social value influencing their intention to purchase green products as responses skewed more to neutral. Results indicated that the higher the social value, the more the consumer was willing to purchase green products. Overall, it is concluded that while South Africa consumers were not sure if green products gave them social value, the social value did positively influence intention. It was not as influential as environmental concern or perceived trust. Therefore, it seems green consumption has not become a social norm in South Africa. The challenge for marketers and government is to develop a shared responsibility for the environment such that families, peer

groups, co-workers etc. place pressure on other members of society to perform the required behaviours to protect the environment.

5.2.6 Objective 6: To determine if demographic factors (age, gender, race, education, and income) affect green purchase intention.

An important feature that influences purchase intention is demographics (Madahi & Sukati, 2012:154). This section discusses the various demographic factors that influence the South Africa consumer in this study. The demographic factors which are covered in this study are age, gender, education, income, and race.

The most consistent profile of green consumer is that younger customer carries out greener consumer behaviour than older customers (Han, *et al.*, 2011:348), that females were more likely to partake in pro-environmental behaviour besides having high intentions to buy green products and are slightly more optimistic in their food-related brand evaluation (Chekima *et al.*, 2016:3441, Liang, *et al.*, 2013:16, Rahim, *et al.*, 2017:6, Kalogianni, *et al.*, 2002:32). The green consumer was also found to be educated and had a high income (Wekeza and Sibanda, 2019:22, In and Ahmad, 2018:5).

The independent T-test and the one-way ANOVA was utilized to test the difference between the demographic factors (gender, age, education, income, and race) and purchase intention.

The mean value of the intention to purchase green products by female respondents was 3.92 compared to 3.88 for male respondents. The standard deviation for females was slightly lower (0.054) than for males (0.065). Results from the findings show that there was no statistically significant difference between gender and the intention to purchase green products by South Africa consumers and that the variance was not heterogeneous, as the p-value of the Levene's Test for gender (0.454) was greater than 0.05. The t value was equal to -4.88 with the degree of freedom (df) equal to 299.

The results showed that there was no significant difference in consumer purchase intention by the following demographic factors, race, income, education, and age. This is contrary to other studies by Wekeza and Sibanda, (2019:22), Chekima, *et al.*, (2016:3446), Rahim, *et al.*, (2017:6), Omar, *et al.*, (2017:75), Mo and Wong (2012:32), that reported a significant difference based on one or more demographic variable.

It should be noted that while in this study a confidence level of 95% was used, race was not significant at $p < 0.05$. Using a 90% confidence interval might significantly impact this result and giving South Africa's racial diversity may indicate an area for further research as specified in the Future research section below.

5.3 Recommendations

5.3.1 Product Quality

Perceptions of green products being of high quality were found to positively influence the consumers' purchase intention; therefore, the following are recommended to maintain and communicate the quality of the green product.

- Marketers or companies must continue to invest in the actual quality of green products to support perceptions. It is therefore recommended that companies must always over-deliver rather than under-deliver on their promise. Companies that are doing the opposite will be caught out and will lose consumer trust and this will negatively affect the brand image but also the positive perception consumers have that green products are of high quality.
- There was a fairly high level of neutral responses to some of the quality questions. Through proper communication on the benefits of green products, these neutral responses could be moved to a positive perception by focusing on green product excellence and durability.
- Symbols and signs that certifies products as green should be visible and seen by consumers as this assures the consumer that the product is green. and that the quality has been checked and approved by a third party. Management should use the result of the findings as a guideline to improve the quality of their products as the quality of products should not be overlooked as consumers relate price with quality when making a product decision (Alfred, 2013:179).
- Management could try and improve on quality attributes with a low mean score such as durability (3.638) and professional (3.721). To improve low perceptions, green product durability could be communicated as follows:
 - ❖ A product made from a material that can be recycled.
 - ❖ Does not contain toxins.
 - ❖ Cannot be easily damaged.
 - ❖ Has minimal or no effect on the environment.

Communicating the benefits of green products to consumers should be marketers main concern, as this is deemed as a vital means for the accomplishment of any biodegradable product.

Therefore, organizations that adopt green marketing should provide good quality products to consumers to increase satisfaction and trust, which will encourage them to purchase green products in the future.

5.3.2 Price of Green Products

- Many consumers use the perception that green products are costly as a reason not to assume a green lifestyle (Basgoze, 2012:484). This could be looked at from a niche market point of view, where some consumers are less price sensitive. Therefore, green products need to be positioned in such a way that they portray the benefits which are associated with purchasing and using

green products by focusing consumers attention on those added benefits that account for the additional cost that is used to ensure the quality of green products.

- Marketers should also implement pricing strategies for green products owing to the consumer sensitivity towards high prices that are linked with green products.
- There should be a clear distinction between the benefit of green products and the premium price paid on green products in comparison to traditional products, as this would encourage consumers to make a green purchase decision.
- Companies should use more marketing resources such as promotional items to boost green product pricing comparative to traditional products price, to build a competitive edge for the company by improving green product acceptance and willingness of consumers to purchase green products at a premium price.
- Price was not found to be a top predictor of purchase intention; therefore, more emphasis must be given to other variables that have been found to have a high influence on purchase intention. Marketers should note that, though the price is not the top predictor of intention, it was the only variable that had a negative influence. To reduce green product being more expensive than traditional products, the following can happen.
 - ❖ The government should give tax incentives to companies or businesses that use sustainable environmental production methods to produce green products at a low cost but high quality.
 - ❖ A sustainable business strategy should be adopted by companies as a means to improve efficiencies and to bring down cost so that prices can be reduced.

5.3.3 Perceived Trust

- Companies should support green product innovation and offer green products that meet the expectations of consumers, enhancing consumers' trust in products.
- When interacting with consumers, companies should convey the reliability of environmental features and environmental protection effects of green products to consumers, enhancing consumers 'trust in the products, and their green purchase intention.
- Companies should be mindful of greenwashing as this may lead to non-patronage and lack of consumption of green products.
 - ❖ Companies must be honest and humble when products are not 100% green and should be able to freely declare this publicly.
 - ❖ Companies must find out consumers' green expectations and ensure that their businesses' products or services green claim is true and consistent with the expectations of consumers.
 - ❖ Companies must make accessible to the public information on green claims.

- ❖ Greenwashing can be controlled through government regulation of products and services to environmental marketing claims by eliminating unfair or deceptive acts or practices. This is similar to what has been done in the United States whereby a fine is issued to the violator (Delmas & Burbano, 2011:69).
- ❖ Seeking certification for green products could assist in building trust.

In this study, trust was identified as the second most important predictor of purchase intention, as it is evident that trust helps consumers to overcome the uncertainty perception and the risk involved in the intention to purchase green products (Lal, Sharma & Sharma, 2017:712). All negative perceptions associated with trust was also not evident in this South African sample. Also, trust had relatively high neutral response percentages which show people were not too sure about the trust items.

5.3.4 Environmental Concern

- Environmental concern was found to have the greatest positive influence on consumer purchase intention and should be utilized in environmental awareness campaign programs to increase green consumer knowledge on the effect of not going green on the environment.
- Improve public awareness of the benefit of going green to achieve a larger green market segment. Companies can use effective communication to help consumers better understand how their behaviour and consumption pattern influences the environment. According to one of the items on environmental concern, consumers agreed that they are willing to reduce their consumption to help protect the environment. Hence, it is advised that consumers be encouraged to go green and be constantly reminded of the benefit of going green.
- The government must be forceful and implement its regulations and policies to control behaviours such as anti-pollution and on the need to act pro environmentally.
- Policymakers should enhance pro-environmental concern via educational awareness programs using radio, newspaper, television etc. (Khaola, *et al.*, 2014:369).
- Consumers should be encouraged to change their social behaviour towards the environment and try as much as possible to maintain such behaviour.

5.3.5 Social Value

- There should be a social interaction between green and non-green consumers to share information relating to green product benefits and their usage.
- Create more awareness of green products within social groups, friends, family, professional colleagues, educators, employers, employees, and communities, in attempts to influence their purchase of green products

- There were very high scores of neutrality for social value, possibly not sure about how green products give social value or unsure of what is meant by social value. Again, create awareness of green products within different social groups.

5.3.6 Theoretical Contribution

From a theoretical perspective, the study confirmed the importance of environmental concern as a predictor of green purchase intention but also indicates that trust in green products is also a variable that should be included in green product behaviour models. The issue of greenwashing is also an important aspect that should not be ignored as false advising is detrimental for any business. Consumers want to be able to relate to the product that they purchase. Trust in green products, therefore, plays an important role and should be included in green product behaviour models as mentioned before. The conceptual framework from this study could be tested with different kinds of green product to determine whether the model holds across product categories.

5.4 Limitation and Recommendation for Future Study

5.4.1 Green Product Definition

The questions used in this study were posted as ‘green products’ without distinguishing between different green products. This might pose a limitation to the study, as consumers intention towards the purchase of a specified type of green product was not examined in this study and may be different for different kinds of green product. Hence, it is difficult to tell what green products the respondents had in mind while answering the questionnaire and thus, it is recommended that a comparative study be carried out in future studies.

5.4.2 Neutrality Related to the Social Value Scale Items

There was a possibility that some of the statements were misunderstood by respondents. Although the pilot test was carried out, it did not pick this up. This was mostly in relation to the social value items. The high level of neutrality indicates that respondents were unsure about their perceptions of the social value items. Social value was found to be an influencer of green intention so further investigation is needed. The measures were found to be reliable and valid and yet fairly large neutral scores were recorded. It is therefore recommended that qualitative research be carried out to understand people’s perception of social value, how important it is to them, and what provides social value to them. This could be investigated generally but also specifically in relation to green behaviour. The scale used may be culturally biased as it was developed in Australia and perhaps a new, South Africa-specific scale should be developed.

5.4.3 Sampling Method

Due to the sampling method (snowball), there was a common link between the researcher and seed respondents, which could result in socially required answers as respondents would want to answer questions and appear to know the subject since their social network had referred the researcher to them. To overcome this problem, a probability sampling method would be more appropriate, if the researcher can have access to a sampling frame. Also, snowball sampling methods do not allow for the findings to be generalized due to non-probability sampling.

Due to Covid 19 restrictions, the study was extended from residents residing in Centurion (Gauteng Province) to all South Africa residents. The study was expanded from being a researcher administered study restricted to Centurion to an email-based survey due to Covid-19 restrictions. As a result, no geographic delimitation was needed and would be difficult to administer. However, no changes were made to the questionnaire. Hence, the questionnaire did not ask the respondents which province they come from. Therefore, it was not possible to establish if there was a provincial bias to the sample, nor whether there were differences in any of the variables across the provinces or between rural and urban respondents. This is something that can be researched in the future.

5.4.4 Measure of Perceived Price as a Perceived Behavioural Control Measure

The way perceived price measured was not a measure of PBC as it reflected a consumer perception about the price rather than a measure of their perceived ability to pay the high price or afford green products. Other researchers have operationalized the variable in the same way you did (e.g. Nam *et al.*, 2017) and the scales used were taken from other validated scales from other studies, but that future research might be more specific in its focus on price and PBC e.g. by using statements like I have the money to pay the higher prices; I am able to pay the expensive amounts etc.

5.4.5 Strict Confidence Level Applied

This research applied a relative strict confidence level of 95% ($p < 0.05$) for significance testing. A slightly more lenient confidence interval of 90% ($p < 0.10$) utilization as done in some social science research, would have made race significant. Given South Africa's racial diversity, further research could pay closer attention to possible differences in green product purchase intention across the race groups.

5.4.6 Intention versus Behaviour as the Dependent Variable

Studies show green behaviour to be low and the existence of the intention-behaviour gap around the world (Joshi & Rahman, 2015:130, Nguyen, *et al.*, 2019:119) and in South Africa (Mkhize & Ellis',

2018:123, Anvar & Venter, 2014:183). More research needs to be done directly on actual behaviour and the factors influencing it rather than on behavioural intention.

5.5 Overall Conclusion

The purpose of this research was to determine South African consumers' perceptions and intentions towards green product purchasing and whether the perceptions and especially negative perceptions about green product inferior quality, high price, and greenwashing, are possible explanations for the limited green behavioural intention amongst South African consumers. A conceptual framework and hypotheses were formulated to determine the relative impact of these perceptions compared to factors traditionally investigated with green behaviour such as environmental concern and social norms. In the previous chapter, findings associated with this study were presented and, in this chapter, discussed and conclusions drawn for the research objectives.

Sixty-two to seventy-three percent of the respondent agreed that the quality of the green product was high. The results of this study showed that these South Africa consumers perceived the quality of green products to be reliable, excellent, durable, professional and as a benchmark when purchasing green products, and this significantly positively influenced their purchase intention.

The perceived price of green products was found to have a negative influence on South Africa consumers' intention to purchase green products, as the price of green products was considered to be expensive, costly, higher than that of corresponding traditional products, and also seen to be higher than expected. Since price has a negative influence on intention, it is therefore recommended that marketers should rather focus on addressing other more influential variables like environmental concern and trust.

Perceived trust, on the other hand, had a positive influence on South Africa consumers' intention to purchase green products based on consumer's perception of green products of been reliable, dependable, trustworthy, and meeting their expectations. It must be noted that trust was the second most influential predictor of intention to purchase green products. The main assets of businesses are their clientele and without them, no business would flourish, and no business would prosper in their endeavours. To retain them, businesses need to develop a relationship with them so that both parties are satisfied. By building trust between businesses and customers, businesses can establish a better work ethic in employees, improve the business' reputation and, most importantly, provide something of worth to customers. It is therefore imperative for management and marketers to build trust with their consumers. Consumers need to be able to trust the quality and functionality of green products as well as communication by the business about green products. Seeking certification for green products could assist in building trust.

Environmental concern also played a significant role in consumers' intention to purchase green products. It was noted to be the most influential predictor of intention to purchase green products. This sample of South African consumers was found to be concerned and be willing to reduce their consumption to help protect the environment, believed that major political and social changes were needed to protect the natural environment and that anti-pollution laws should be enforced more strongly to protect the environment. This finding meant that these South African consumers showed great interest in environmental issues and their concerns affect their purchase intention for the products that they consume. It is therefore recommended that business and marketers should focus on a niche market of consumers that have high levels of environmental concern.

Social value had a lot of neutral responses, which indicates that, though the South African consumers may have a positive attitude towards a green purchase, they were not entirely sure whether green products give them social value. The study results, however, showed that there was a positive relationship between social value and purchase intention. The largest percentage of these South African consumers' felt that green products made them feel accepted and gave their owner, social approval. However, the largest percentage of respondents were neutral on their perspectives on whether green products improve the way they are perceived and made a good impression on other people. Understanding the high level of neutrality requires deeper, qualitative research.

Overall, to ensure environmental protection, increased consumer awareness and intention to purchase green products, government and business must work together to ensure that green production catches the attention of the consumer by implementing policies that ensure that the production of goods and services are environmentally sustainable.

Management should be aware of greenwashing as trust was identified as the second-highest predictor of purchase intention. Management must understand that trust helps consumers to overcome the uncertainty perception and the risk involved in purchasing green products. Also, management must remember the high level of concern that the consumer has for the environment and try to use that to their advantage as environmental concern was found to be the highest predictor of intention to purchase green products. Therefore, all recommendation made above must be put in place.

The consumer perceives green products to be of inferior quality, high price and that possible greenwashing prevent consumers from purchasing a green product. However, this was not evident in this study. It can be concluded that consumers in South Africa are cautious of the impact of non-green

production and consumption on the environment. Also, it can be deduced from the findings of this study that the premium price of green products influences the consumers' intention not to purchase a green product. Therefore, to promote the use of green products; from a policy perspective, the government can offer support such as a consumer price subsidy to make the green product affordable, and the provision of effective regulations and certification around the marketing of green products.

This research makes two main contributions. From a practical perspective, the findings from this study showed that environmental concern is the greatest predictor of purchase intention. The respondents from this study had a high concern for the environment and are interested in environmental issues. Therefore, their concerns affect their purchase intention for the products they consume. Also, trust was found to be the second predictor of purchase intention. Companies and marketers need to build trust with their customers. Consumers appreciate transparency; thus, companies and marketers must exhibit transparency at all times by avoiding claims that are not true about being green. From a theoretical perspective, the study confirmed the importance of environmental concern as a predictor of green purchase intention but also indicates that trust in green products is also a variable that should be included in green product behaviour models.

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APPENDICES

Appendix A

UKZN HUMANITIES AND SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE (HSSREC)

APPLICATION FOR ETHICS APPROVAL

For research with human participants

Information Sheet and Consent to Participate in Research

Date:

Greetings,

My name is Vivian Chineye Ofili Aigbe from the School of Management, Information Technology and Governance, College of Law and Management Studies (Cell: 0825357551, Email: 203508934@stu.ukzn.ac.za). My supervisor is Prof Debbie Ellis (Email: vigard@ukzn.ac.za).

You are being invited to consider participating in a study that involves research on factors that influence consumer purchase intention. The aim and purpose of this research is to gain insight and assess how various factors like perceived quality, perceived price, environmental concern, perceived trust, and social value influence South African residents in purchasing of green products. The study is expected to include 350 participants living in South Africa. It will involve emailing of questionnaires to respondents living in South Africa from the researchers' email contact list. Respondents are also requested to email this questionnaire to 10 people on their email contact list and completed questionnaires should be emailed back to them or the researcher (203508934@stu.ukzn.ac.za or nevesdome2000@yahoo.co.uk).

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number - HSSREC/00001070/2020).

In the event of any problems or concerns/questions you may contact the researcher at (0825357551) or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban 4000 KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Your participation in the study is voluntary and by participating, you are granting the researcher permission to use your responses. You may refuse to participate or withdraw from the study at any time with no negative consequence. Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance and your responses will not be used for any purposes outside of this study.

All data, both electronic and hard copy, will be securely stored during the study and archived for 5 years. After this time, all data will be destroyed.

If you have any questions or concerns about participating in the study, please contact me or my research supervisor at the numbers listed above.

Sincerely

A black rectangular box used to redact the signature of the researcher.

(Vivian Chineye Ofili Aigbe)

CONSENT TO PARTICIPATE

I (Name) _____ have been informed about the study entitled Understanding the Factors Influencing Green Purchase Intention by Vivian C. O. Aigbe.

I understand the purpose and procedures of the study.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at neyesdome2000@yahoo.co.uk.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Signature of Participant

Date

Appendix B- Questionnaire

SECTION A

Please indicate your level of agreement with each statement by crossing/clicking the appropriate box.

S/N	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The quality of the green products is regarded as the best benchmark	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
2	The quality of the green products is reliable	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
3	Green products are durable	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
4	The quality of green products is excellent	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
5	The quality of the green products is professional	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

S/N	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6	Green products are very expensive.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
7	Green products are costly	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
8	The price of green products is higher than that of corresponding traditional products.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

9	The price of green product is higher than expected.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
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S/N	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10	I am very concerned about the environment.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
11	I would be willing to reduce my consumption to help protect the environment.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
12	Major political change is necessary to protect the natural environment.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
13	Major social changes are necessary to protect the natural environment.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
14	Anti-pollution laws should be enforced more strongly	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

S/N	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
15	I believe that green products' environmental	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

	images are generally reliable.					
16	I think that green products' environmental performance is generally dependable	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
17	Overall, I believe that green product's environmental claims are trustworthy.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
18	Green products' environmental performance meets my expectations	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

S/N	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
19	Green products help me feel accepted.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
20	Green products improve the way I am perceived.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
21	Green products make a good impression on other people.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
22	Green products give their owner social approval	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

S/N	Statements	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
23	I will purchase green products for personal use	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
24	I am willing to purchase green products for personal use.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
25	I will make an effort to purchase green products.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
26	I will purchase green products in my next purchase	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>

SECTION B

Please mark the applicable block with an X.

Age

☐ 18-25

☐ 26-35

☐ 36-45

☐ 46-55

☐ Above 55.

Gender

☐ Male

☐ Female.

Education

☐ Below Matric

☐ Matric

☐ Diploma

☐ Degree

☐

Postgraduate

Income Level (Please check the category that best suits your family monthly income)

☐ Below R5,000

☐ R5,000 - R25,000

☐ R25,000 - R50,000

☐ Above R50,000.

Race

☐ Caucasian

☐ African

☐ Indian

☐ Coloured

☐ Others

Thank you

Appendix C- Ethical Clearance



UNIVERSITY OF
KWAZULU-NATAL
INYUVESI
YAKWAZULU-NATALI

05 March 2020

Mrs Vivian Chineye Ofili Aigbe (203508934)
School Of Man Info Tech & Gov
Pietermaritzburg Campus

Dear Mrs Aigbe,

Protocol reference number: HSSREC/00001070/2020
Project title: Understanding the Factors Influencing Green Purchase Intention: A Case Study of Centurion Residents
Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 28 February 2020 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 05 March 2021.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Urmilla Bob
University Dean of Research

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54051, Durban 4000
Tel: +27 31 260 8399 / 4567 / 3587
Website: <http://research.ukzn.ac.za/Research-Ethics/>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

18 May 2020

Mrs Vivian Chineye Oflia Aigbe (203508934)
School of Management, IT & Governance
Pietermaritzburg Campus

Dear Mrs Aigbe,

Protocol reference number: HSSREC/00001070/2020
New Project title: Understanding the Factors Influencing Green Purchase Intention
Degree: Masters

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 28 April 2020 has now been approved as follows:

- Change in title
- Research Methodology (Changing from face to face data collection to online data collection method due to Covid-19 pandemic)

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study must be reviewed and approved through an amendment /modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

Best wishes for the successful completion of your research protocol.

Yours faithfully



Professor Dipane Hlalele (Chair)

/ms

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8399 / 4657 / 3687
Website: <http://research.ukzn.ac.za/research-ethics/>

Founding Campuses:  Durban  Pietermaritzburg  Westville  Howard College  Medical School

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