Perceptions of retail managers and consumers of green products at select Pick & Pay stores in Durban

Submitted in fulfilment of requirements of the degree of Master's in Management Sciences: Marketing in the Faculty of Management Sciences at the Durban University of Technology.

Silungile Brightness Mncwabe

January 2018

Supervisor: Dr Corné Meintjes: DCom

Date: 2018-01-15

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the author and are not necessarily to be attributed to the NRF.

Abstract

Green marketing is about marketing products and services based on environmental factors or awareness. Consequently, companies involved in green marketing make decisions relating to the entire process of the production of the company's products, such as methods of processing, packaging and distribution. Green marketing focuses on the green marketing efforts companies use, including corporate social responsibility plans and sustainability efforts. Most consumers are environmentally conscious, seeking eco-friendly products and services from companies that are socially responsible. Green marketing is aimed at encouraging consumers to buy products which are less harmful to the environment, to help save the planet. This study aimed to investigate this from both a retailer and consumer perspective. Selected Pick & Pay retail managers and their consumers in Durban were asked their views on product quality, price and availability of information (advertising).

A mixed method (quantitative and qualitative) strategy was adopted. Participants and respondents were purposefully selected, while their participation in this study was voluntary and confidentiality was maintained. The research included interviews with the five retail managers of the selected stores and a survey of 200 consumers. In the survey, 250 questionnaires were despatched and 200 were returned, which constituted a response rate of 80%.

Content validity ensured that the survey focused on concepts and constructs that emerged from the review of literature on the awareness of green products. Cronbach's alpha index was used to confirm the reliability of the instrument. The findings suggest that the awareness of green products varied among South African consumers. Furthermore, the data obtained from the quantitative instrument indicated that the location of the consumers (rural, urban, and sub-urban) as well as the ethnic group (African, Coloured, Indian, and White) identified by the consumers strongly correlates with their use of green products. In addition, the quantitative results showed that more consumers, particularly white South Africans living in urban or sub-urban areas, will adopt green products irrespective of the price of green products.

To further support the quantitative findings, interviews conducted with five retail managers, were recorded and transcribed to ensure credibility. The results were interpreted and analysed against existing literature using thematic content analysis. The interviews conducted revealed that retail managers are of the view that most South African consumers do not understand what green products are. This was largely attributed to a lack of adequate information on green products.

The salient feature of this study therefore suggests that the use of indigenous languages will help educate the South African consumers on the benefits associated with the use of green products. Ultimately, adopting green products by South African consumers will add a positive benefit to the environment as well as encouraging future generations to adopt green products.

In view of the above, and to ensure proper awareness and marketing of green products, it is highly recommended that government and non-government companies should play an important role in encouraging consumers to go green and embrace green purchasing behaviour. This could be in the form of creating effective marketing campaigns or environmental-related activities, and developing a policy that will issue grants to companies implementing green marketing, which will encourage companies to utilise their resources to provide environment-friendly products.

1. I know and understand that plagiarism is using another person's work and pretending it is one's own, which is wrong.
2. This dissertation is my own work.
3. I have appropriately referenced the work of other people I have used.
4. I have not allowed, and will not allow, anyone to copy my work with the intentions of passing it as his or her own work.

_____

Silungile Brightness Mncwabe

Student Number: 21240970

Declaration

I, Silungile Brightness Mncwabe, hereby declare that this dissertation is wholly my own work, and that all the references to the best of my knowledge, are accurately reported. This work has not been submitted for a degree at any other university.

Signature

Date

Dedication

This dissertation is dedicated to my late grandmother **MaKhuboni Mncwabe**, who raised me with love and taught me respect and loyalty.

Acknowledgements

This work was never going to be a success without the Almighty, Who gave me strength and courage to push forward with the project.

I would like to extend my gratitude to my supervisor **Dr Corné Meintjes** for her patience, support and encouraging words to keep me going.

Especial thanks to my tutor **Stanley C Onwubu** who has assisted me throughout. I sincerely thank you for your time and your energy.

I would also like to thank all the tutors at the writing centre (ML Sultan Campus) for being so helpful, especially Olayeme Bakre.

To the Pick n Pay stores that allowed me to do my study at their premises, I really appreciate your help.

Not to forget my family who stood beside me every step of the way, my mother Nokuthula Mncwabe for her undying love towards me. Thank you ma for all your support and for believing in me.

To my siblings and cousins who took care of my daughter day and night, I love you all.

To my late brother Sandile Mncwabe, who lost his life when I was just doing my Masters proposal, pity you will not be seeing my graduation.

To my princess Thando, thank you for being patient with me I am doing this for you.

I would also like extend my gratitude to everyone who has supported me emotionally especially Dr D. Veerasamy and Dr T. Tlapana, and my very close friend Sabelo Ntuli.

Table of Contents

List of Figures

List of Tables

CHAPTER 1 – Orientation and overview

1.1 Introduction

In recent times, while globalisation process continues full speed across the world, it has also generated some environmental concerns with it. Boztepe (2016:8) stated that with the increase in industrialisation and urbanisation, the usage of resources, even though there might be shortages, has confronted the natural environment and human health with pollution at dangerous levels. Consequently, marketing managers, particularly in developing countries such as South Africa are beginning to put in place operations of implementing environmentally friendly products (Boztepe (2016: 8). Of concern, however, Lee and Parks (2013: 12) argued that a clear majority of consumers in South Africa are still unaware of green products. The lack of consumer awareness of green products was attributed to the marketing strategy adopted by most corporate organisation (Thakur and Gupta 2012: 122). Hence, an articulated consumer oriented marketing strategy is therefore needed for the sustainability and protection of the environment for future generation. As most marketing studies have focused entirely on corporate companies with little attention given to consumers, particularly with respect to their preferences, perceptions, behaviour, and motivations (Thakur and Gupta 2012: 122).

Significantly, concerns have also been raised that consumers in South Africa are not schooled about the importance of green marketing. This study, within the parameters outlined, will therefore explore the perceptions of South African consumers with regards to green marketing.

1.2 Background and context of the study

The green marketing concept began because of industries' interest in the environment (Hashem and Al-Rifai 2011:52). The green notion and green marketing have experienced an exponential growth over the last decade and it has had a significant impact on the market and environment globally (Mohanasundaram 2012:34). Green marketing plays a big role in attracting new customers and customer maintenance

(Azad *et al.* 2013:1370), which contributes to making green marketing recognisable and an important element of the marketing process of most companies. Green marketing emphasizes the importance of environmental awareness (Smith, Lawrence and Richards, 2010:54).

Azad *et al*. (2013:1369) explain that companies who are involved in green marketing seek to go beyond traditional marketing by uplifting environmental core values hoping that consumers will associate these values with the brand. These days, consumers should have a high level of concern for protecting the environment and they should be willing to consume those products, which are environmental friendly. Ottman, Stafford and Hartman (2006:27) suggest that eco-friendly initiatives within marketing can be an approach used by manufacturers to encourage consumers in sustaining the ecosystem. As these factors have made it necessary to study the concept of green marketing and the other related issues on this subject, the imperativeness of the current study cannot be over-emphasized as this has led to resistance among consumers who are reluctant to buy green products, because of the risks they perceive in terms of quality, price, lack of certainty as to the place of green products in society (Chen and Chai, 2010:30).

In the last decade, literature (D Souza 2004; Lee 2008; Lee 2009; Rahbar and Wahid 2011) documented that consumers are aware of and are willing to pay more to go green. Despite this, there has been limited research which has examined the nature of green marketing on consumers from emerging economies such as South Africa. Cherian and Jacob (2012) pointed out that studies related to green consumerism have been solely conducted in well-developed countries. It is therefore acknowledged that from a developing country context, there is a dearth of research on the awareness of green products amongst consumers in South Africa. This study therefore envisages exploring the level of awareness of green products among consumers in South Africa.

1.3 Problem statement

Due to the fast deterioration of the natural resources attributed to population growth and pollution activities, most countries have realised the importance of clean production. Several international treaties have been signed including the Kyoto Protocol and the 17th Conference of the Parties (COP 17:2012) to promote production

in an environmentally friendly way. The Kyoto Protocol and COP 17 are climatic change conventions held annually where leaders and scientists across the globe are invited (Boyle 2011:43). Some of the global problems that have arisen due to pollution include global warming, acid rain and the greenhouse effect to ensure compliance with the treaties such as the Kyoto protocol. Many countries have crafted policies which promote production in a sustainable and environmentally friendly way.

Thakur and Gupta (2012:122) mention that many corporates have taken green marketing further as a part of their company strategy just to create brand image and gain the attention of the consumers. They further explain that companies that have adopted green marketing into their corporate strategy can enjoy a competitive advantage over the companies who are marketing non-environmentally responsible alternatives. More so, the authors maintain that marketing studies have focused essentially on companies, and only a small number have looked at consumers in terms of their preferences, perceptions, behaviours and motivations. Concern has also been raised that consumers are not educated on the importance of green marketing.

In Lee and Park's (2013:12) opinion, the vast majority of South Africans are unaware of green products. This has resulted in a loss of opportunities for retail stores as well as a loss of health benefits for consumers, and many of the green products have an inverse effect on human health (Kontic 2010:33). Furthermore, Lee and Parks (2013:43) argue that the promotion of green products will decrease the impact of climate change, thus, it will enhance the sustainability of the ecosystem. In line with this, this study aims to explore the perceptions of Pick 'n Pay retail managers and consumers with regards to green marketing.

1.4 Aim of the study

The primary aim of this study is to investigate the perceptions of green marketing of retail managers and consumers of selected Pick n Pay stores in Durban.

1.5 Research questions

To address the aim of the study the following research questions were posed:

- Are retail managers and consumers aware of green products at selected Pick and Pay stores in Durban?
- What perceptions of green product quality, according to retail managers and consumers, affect consumers' adoption of green products at selected Pick and Pay stores in Durban?
- What perceptions of green product price, according to retail managers and consumers, affect consumers' adoption of green products at selected Pick and Pay stores in Durban.
- What perceptions of green product information availability, according to retail managers and consumers, affect consumers' adoption of green products at selected Pick and Pay stores in Durban.
- What are the reasons for adoption/non-adoption of green products among consumers, according to retail managers and consumers themselves?

1.5 Objectives

"The research objectives should be precisely written and must lead to observable outcomes" (Lewis, Thornhill and Saunders 2003:30). The researcher must ensure that he/she does not fall into the trap of stating general research objectives that are little more than statements of intent.

To achieve the aim and address the research questions posed, the following objectives have been established:

- **Research objective 1**: To determine the level of awareness of green products among retail managers and consumers of selected Pick n Pay retailers.
- **Research objective 2**: To determine the perceptions of quality among retail managers and consumers of selected Pick n Pay retailers affecting adoption of green products.
- **Research objective 3**: To determine the perceptions of the price among retail managers and consumers of selected Pick n Pay retailers affecting adoption of green products.
- **Research objective 4**: To determine the perceptions of the availability of information on green marketing/ products among retail managers and

consumers of selected Pick n Pay retail stores in Durban affecting adoption of green products.

- **Research objective 5**: To determine the reasons affecting the adoption of green products among consumers, according to retail managers and consumers themselves.

1.7 Hypothesis

Johnson and Christensen (2008:33) hold that "a hypothesis is a suggested, preliminary, yet specific answer to a problem, which has to be tested empirically before it can be accepted as a concrete answer and incorporated into a theory. A hypothesis is actually what one wants to know". According to Marshall (2002:27), a "hypothesis proceeds from a statement of the research problem. It serves as point of departure and as a directive for the planned research. It also serves as an instrument, which the researcher can use to determine whether she is collecting relevant data". The formulated hypothesis on the nature of green products is as follows:

H_1: Consumers in South Africa have different levels of awareness of green product.

H_0: There are no differences in the level of awareness of green products among consumers in South Africa.

1.8 Significance/rationale of the study

The green marketing concept began because of industries' interest in the environment (Hashem and Al-Rifai 2011:52). The green notion and green marketing had an exponential growth over the last decade and it had a significant impact on the market and environment globally (Mohanasundaram 2012:34). Green marketing plays a big role in attracting new customers and customer maintenance (Azad *et al*. 2013:1369), which contribute to making green marketing recognisable and an important element of the marketing process of most companies. Green marketing emphasizes the importance of environmental awareness (Smith, Lawrence and Richards 2010:154).

Azad *et al*. (2013:1369) explain that companies who are involved in green marketing seek to go beyond traditional marketing by uplifting environmental core values hoping

that consumers will associate these values with the brand. These days' consumers should have high concern for protecting the environment and they should be willing to consume those products which are environmental friendly. Saari, Baumgartner, and Mäkinen (2017:2) suggest that eco-friendly initiatives within marketing can be an approach used by manufacturers to encourage consumers in sustaining the ecosystem.

1.9 Scope of the study

This study was conducted mainly in the Durban area, among specific Pick n Pay stores and communities, therefore the findings may not be generalised to other cities and other retailers.

1.10 Overview of research methodology and research design

This study has been stimulated by inductive reasoning. Using scientific reports, research and development publications, scholarly articles and standard requirements, the study investigated the adequacy of current strategies. The strategy that was adopted was both a positivist and interpretive paradigm.

Both quantitative and qualitative research approaches were used for the study. In addition to the consultation of literature sources, surveys and semi-structured interviews were conducted with consumers as well as retail managers from selected Pick n Pay outlets within Durban, South Africa.

In the quantitative phase, data collection involved purposive sampling of respondents, distribution of questionnaires to customers. The target population were 250 Pick n Pay customers. The collected data were analysed using both descriptive and inferential statistics. Content validity and Cronbach Alpha was used to ensure the validity and reliability.

With regards to the qualitative phase, five Pick n Pay retail managers/supervisors from each selected outlets were and interviewed. The information gathered was thematically analysed and utilised fully, in order to achieve the research aim and objectives. The validity of the study was based on credibility, dependability and transferability (Lincoln and Guba 1985).

1.11 Format of the study

The dissertation was divided into five chapters.

Chapter one foregrounded the context of the study by detailing the challenges confronted the marketing and awareness of green products in South Africa. This steered the chapter towards the aim and objectives/questions, hypothesis, and scope of the study.

Chapter two reviewed and shed light on the literature revolving around the issue of green marketing, the benefits and the effects and how and when it emerged and so forth.

Chapter three provided a detailed discussion of the research methodology employed in the primary investigation. It will present the stages that were undertaken in the preparation of the study. It indicates the types of research, data collection, and analytical processes employed.

Chapter four provided a plan of factual reporting of the results of the primary study. This is done mainly through graphs and percentages.

Chapter five provided a detailed account of the findings of the research and offers constructive recommendations and a conclusion of the study.

1.11 Conclusion

A problem statement preceded by a brief introduction and background of the proposed study has been outlined in this chapter. The aim, objectives, questions have been identified. The purpose of this research was to create an awareness among consumers on how important purchasing green products is and how it will help in protecting the environment, and this study also alerts the consumers to the benefit of purchasing these kinds of products which are “green products”. The next chapter focuses on literature reviewed by various secondary sources based on the nature of green marketing.

CHAPTER 2 - Literature review

2.1 Introduction

The resources on earth are not limitless and are being depleted at a rapid rate. What is worse is that this depletion of resources is also threatening the environment, ecosystems and human health. This situation has spurred government and civil social companies and consumers into action. Factors such as population growth and global warming are threatening the future of human beings. Peattie and Crane (2005) have alleged that the exhaustion of natural resources stimulated the emergence of the concept of “Green Marketing”. Defining green marketing can be a very difficult process and is not a simple task. Even the terminology used in this area has varied since the concept was introduced. These include: Green Marketing, Environmental Marketing and Ecological Marketing. Previously, studies under this topic were done using multiple titles, but nowadays the authors seem to be using green marketing (Chamorro, Rubio and Miranda 2009).

This chapter reviews literature related to green marketing. The review unfolds with the historical background of green products and further structured into ten sections. Section One discusses the green products in South Africa. Section Two introduces the concept of quality in green products. It is anticipated that the different consumer attributes related to the concept of green marketing will help to support the adoption of green products by consumers in South Africa. Section Three deals with the concept of green marketing. This is considered pertinent due to the lack of awareness on the benefits of green products among consumers in South Africa. Section four presents an overview and discusses different green marketing strategies employed by corporate companies in South Africa. Section Five discusses the imperativeness of green products, as it is the underpinning concept in adopting green products. A discussion follows of the different measures put in place by corporate companies as well as government agencies on the adoption of green products. Section Six examines the levels of awareness, lack of information and uncertainty of place of purchase of green products in South Africa. It is envisaged that understanding the factors that influence green consumers, particularly as they relate to environmental consciousness, will help in spreading the knowledge of green products. Thereafter, a discussion on the perception on the price of green products follows. This chapter

concludes with an evaluation of the challenges of green marketing and consumer satisfaction, particularly as it is a critical factor in the promotion of green products to consumers in South Africa.

2.2 Historical background to green marketing

Since the 1980s green marketing has gone through some stages which include a backlash in the 1990s and an upswing in the 2000s and onwards (Ottman, Stafford and Hartman 2006). The end of the 1980s is said to mark the beginning of green marketing, and it is the stage during which green business research surged amongst academics (Peattie and Crane 2005). The 1990s was the second stage and it began with very high and hopeful forecasts of a “green tide” of consumers and new products (Van der Merwe and Oliff 1990). The outcome of that decade was not as good as expected. Consumers at that stage were disillusioned and many of the ground-breaking green products produced by specialist companys had left the market and the dramatic growth from the beginning of the 1990s had subsided (Peattie and Crane 2005).

The third stage of green marketing started in 2000 and has been going on since then. More advanced technology has been implemented (Peattie and Crane 2005) and deceptive claims are requiring stricter enforcement. It has also seen the introduction of new regulations from government and through detailed inspections from various environmental companies and the media. Consumers’ confidence in green products has been restored and improved thus many high quality green products have been made since the 2000s. In addition to the concern of environmental quality that is steadily rising, Lee (2008) pointed out that green marketing has now picked up momentum again like back in the 1990s. Some researchers have even said that green marketing is now “making a comeback” (Ottman, Stafford and Hartman 2006; Dangelico and Vocalelli 2017).

2.2.1 Definitions and concept of green marketing

Ever since the 1970s green marketing has been defined in many ways. In 1975 the American Marketing Association (AMA) held its first workshop on ecological marketing and thus green marketing came into existence around the 1980s. The seminal work

of Heion (1976 cited in Roberts 1996) gave the first definition of green marketing which describes it as “the implementation of marketing programs directed at the environmental interests of people towards the environment and the green conscious market segment”. More recently, Polonsky (2011) defined green marketing as the effort by a company to design, promote, price and distribute products in a manner which promotes environmental protection. He elaborated that green marketing encompasses all activities deigned to generate and facilitate any exchanges intended to satisfy human needs or wants such that the satisfaction of these needs and wants occurs with minimal detrimental impact on the natural environment. Resonating with him, Cherian and Jacob (2012) moot that green marketing covers the overall brand of marketing activities undertaken by companies in a manner that they promote and manufacture products which have a positive impact on the environment or alternatively reduce negative impact on the environment. As can be seen there are several definitions all of which can define green marketing with the central meaning, however, remaining the protection of the environment.

Manaf, Atan and Mohamed (2006) and Banerji and Dubey (2014) elaborated that the levels of commitment to the environment and community concerns by a company are revealed by the company’s policies and practices and their influence in determining the quality of the environment. The company thus participates in the endorsement of environmentally safe or beneficial products. Banerji and Dubey (2014) have argued that green marketing has now become a global concept for safeguarding the earth from the damage it has been subjected to for so long. They, however, caution that the earth has limited resources, and it is our duty to make judicious use of it. According to these authors, businesses are showing consumers that they too share the same concerns for the environment by the implementation of green strategies to save the earth’s resources in production, packaging and operations, thus boosting their integrity.

As illustrated in Figure 2-1, Banerji and Dubey (2014) pointed out that other aspects of green marketing include recyclable and biodegradable packaging, ecologically safer products, energy efficient operations and better pollution controls. New products that are a result of green marketing include packaging made from recycled paper, phosphate free detergents, bottles made using less plastic and refillable containers for cleaning products.

Figure 2-1: Concept of green marketing (adapted from Banerji and Dubey, 2014).

2.2.2 Green products and its characteristics

According to Banerji and Dubey (2014), green products are those that were manufactured through green technology that caused no environmental damage to the conservation of natural resources and sustainable development. It is important to promote green technology and its products. As shown in Figure 2-2, green products can be defined by:

1. Product originally grown
2. Recyclable, reusable and biodegradable
3. Products with natural ingredient
4. Products containing recycled contents, non-toxic chemical; products not harming or polluting the environment;
5. Products having eco-friendly packaging (reusable, refillable, containers).

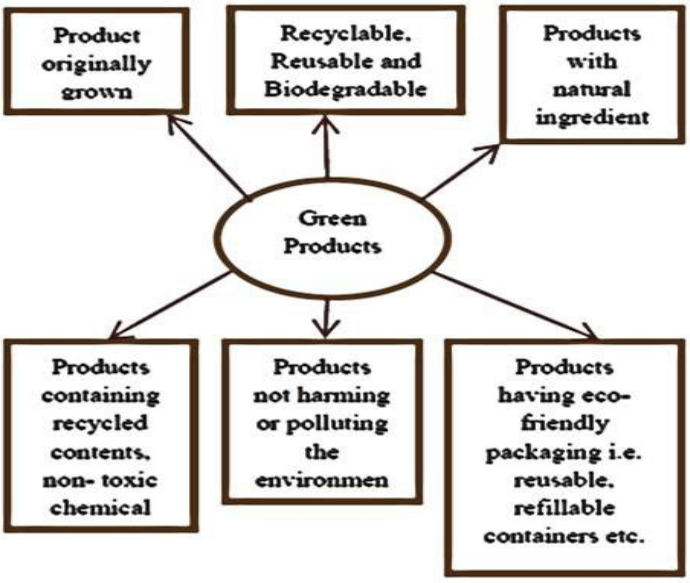

Figure 2-2: Types of green products (adapted from Banerji and Dubey, 2014)

The above definition of green product is modernised to add value to its sustainability. Isaacs (2015) alleged that sustainability products reduce the impact on the environment by virtue of being responsibly sourced products (e.g., those that are either renewable or sustainably harvested). For example, a sustainably harvested source material does not harm the 20 surrounding area, pollute the air, or permanently reduce the supply. Hence, companies that offer environmentally sustainable products/services enhance green perceived value of their brands (Doszhanov and Ahmad 2018). Consequently, Cherrier, Black and Lee (2011) recommend that marketers should focus on consumer preferences and decision making process in order to promote green products. Equally important, studies (Aman 2012; Chahal 2012; Suki *et al*. 2013) reveal that education and awareness of green products significantly influence buying behaviour of customers. The impact of education and awareness of green products is pertinent to this study, particularly in the promotion of green marketing in South Africa.

A powerful interpretation of the term green product comes from the *National Institute of Building Sciences Whole Building Design Guide,* which states that the majority of green products on the market today must (Prowler and Prowler 2008):

- Promote good indoor environmental quality (IEQ), typically through reduced or eliminated volatile organic compounds (VOC) emissions,
- Not contain chlorofluorocarbons (CFCs), halogenated chlorofluorocarbons (HCFCs), or other ozone depleting substances,
- Have low embodied energy (the total energy required to produce a finished product, including the energy used to grow, extract, manufacture, and transport to the point of use),
- Be durable and have low maintenance requirements,
- Incorporate recycled content,
- Be made using natural and renewable resources,
- Be easily reused, either whole or through disassembly,
- Not contain highly toxic compounds and not contribute to highly toxic by-products during the manufacturing process,
- Employ sustainable harvesting practices if wood or bio-based,
- Have to be salvaged from existing or demolished buildings for reuse,
- Be able to be readily recycled, preferably in a closed-loop recycling system, which allows a manufactured product to be recycled into the same product without significant deterioration of quality,
- Be obtained from local resources and manufacturers, and
- Be biodegradable (Amatruda and Energy 2010).

2.3 Green products and the concept of quality

The quality of a product is a vital factor in creating faithful customers who are satisfied with the product. Product quality is the result of a good performance i.e. the extent to which it can meet a customer's requirements without defects (Azad *et al.* 2013). Other dimensions of product quality include packaging design, features and assurances (Peattie and Charter 2003; Tantawi *et al.* 2009). According to Abdul-Muhmin (2002) when the quality of the product is high, it is more acceptable and purchased by the consumer and this brings consummation to both wholesalers and retailers. This author further emphasises that the quality of a product directly influences its performance and is related to customer satisfaction, loyalty and the intentions of continuing to buy the product. Customer satisfaction and the reduction of cost by replacing faulty goods can be achieved by producing quality products. companies

can build a reputation of quality by gaining accreditation with a recognised quality standard such as ISO 9001 (Azad *et al.* 2013).

It is of concern that one of the most important constraints that have hampered the development of green products is the lack of consumer trust and the lack of information (Lai, Cheng and Tang 2010). For instance, a survey has reported that 41% of customers did not buy green products because they were worried about the diminished quality of eco-friendly versions. This means that maintaining high quality will bring about consumer satisfaction and also gives rise to consumer loyalty (Lin and Huang 2012). Thus, as inferred from the above the quality of green products could persuade customers to purchase these products.

2.3.1 Green marketing in relation to the 4 P's

The emergence of green marketing poses a challenge in quality terms since there will be a need to develop new products that match the consumers' expectations i.e. good quality attributes. Product development in the industries, whether at the manufacturers' industry supplier level is inextricably bound to the dictates of the consumer in the marketplace. Marketing is much more than advertising, as it refers to the entire process by which product opportunities are identified, designed, manufactured and promoted to best fit the needs of the consumer and these include quality. Typically, marketing has been said to embody the four Ps, namely product, price, place and promotion and green marketing affects them in a big way (Bhalerao and Deshmukh 2015). The afore-mentioned marketing four Ps is significant to consumer's perception, adoption and purchase of green products. The next section will therefore discuss green products in relation with the four Ps.

2.3.1.1 The green product

There are several characteristics that a product must possess to be labelled as a "green product". Some of them are as follows (Elkington, Hailes and Makower 1990; Sachdev and Mahna 2013):

- The product must not harm any animal or person in any manner.
- The product must not harm the environment in any manner during its life-cycle.
- The product must not consume a disproportionate amount of resources.

- The product must not cause unnecessary waste.

2.3.1.2 The green price

The businesses often price the green products a bit higher than their non-green equivalents. This increased price is justified by citing a cost-intensive production process. The consumers, often, are ready to pay the increased price and show their support for the initiatives taken for a greener environment. For example, organic fruits and vegetables are generally priced higher than normal grocery items (Shamdasani, Chon-Lin and Richmond 1993; Kirgiz 2016).

2.3.1.3 The green place

The concept of green place seeks to go above and beyond the conventional physical distribution and logistics techniques. It involves all the factors from cutting transport emissions to reducing the ecological footprint of the products. For example, if a business X is importing a certain item from some other country, and that item is shipped to him, he may reduce his carbon footprint by finding the product locally and thereby, preventing pollution and shipping costs. However, this idea is not opposed to globalism. If, for example, manufacturing a product locally is more expensive (in terms of carbon emissions) than importing it, then it is advisable to import the product (Peattie and Charter 2003).

2.3.1.4 The green promotion

Green marketing is often thought of only as promotion of green products. Although promotion is an important part of green marketing, it is not the only one. With the advent of green marketing and its gaining huge popularity, it became a common sight to see a plethora of products being promoted as green products. The green promotion became such a widespread phenomenon that the authorities had to intervene and set some ground-rules for products to be advertised as green. Many regulatory guidelines were introduced to standardise claims about the product being environmental and to end consumer confusion and distrust (Kirgiz 2016).

2.4 The business case for green marketing

A business can enhance its competitiveness through improvements in environmental performance to comply with environmental regulations to address environmental concerns of customers and to reduce the environmental impact of its products and services. While the clear majority of consumers claim to be green, green products account for less than four per cent of the global product market share (UNEP 2005). This alone underlines the need for marketing research to address the massive disconnects between attitudes toward green products and businesses and actual purchase behaviours. A true triple-bottom line orientation is a concept that captures an expanded spectrum of values and criteria for measuring organisational (and societal) success: economic, ecological and social. There is a growing interest among top managers, stakeholders and academics regarding green marketing practices and its potential impact on the triple-bottom line (Cronin *et al*. 2009; Hammer and Pivo 2017).

Companies are increasingly adhering to a triple-bottom line performance evaluation, a concept coined to reflect the growing tendency of stakeholders to evaluate organisational performance based on economic prosperity that is profits, environmental quality that is the planet and social justice that is the people. The recent BP oil spill in the Gulf of Mexico typifies the impact that an environmental disaster can have on a company's triple-bottom line. Specifically, companies

are expected to commit to green marketing practices as the cost of materials and energy continue to rise, public pressure continues to increase, there is increasing awareness that subscribing to triple-bottom line practices can increase consumer demand, and consumers' growing antipathy to globalisation relative to green performance (Kleindorfer, Singhal and Wassenhove 2005).

According to Ottmam (2009) from an organisational standpoint, environmental considerations should be integrated into all aspects of marketing new product development and communications and all points in between. The holistic nature of green also suggests that besides suppliers and retailers' new stakeholders be enlisted, including educators, members of the community, regulators, and NGOs. Environmental issues should be balanced with primary customer needs. Successful

integration of eco-system in marketing decisions creates a win-win outcome. This means that all three parties, namely the company, the customer and the eco-system, must win. The challenge, therefore, for the marketer is to create such a winning matrix. The next section will therefore examine the nature of green marking within the context of South Africa.

2.5 Green marketing in South Africa

There is no literature which points out the beginning of green marketing in South Africa but there are events which happened which led to an awareness of the relevance of the subject and these include the Green Economy Summit held between 18 to 20 May 2010 at the Sandston Convention Centre, Johannesburg, south Africa. The aforementioned summit was attended by a multi-sectoral stakeholder base comprising government officials, business representative, labour representative, various non-governmental organisations, academia as well as various international companies amongst others. The Green Economy Summit is regarded as the starting point towards identifying flagship programs that demonstrate green economy activities in South Africa (Green Economy Summit 2010).

According to the Summit Report, the green economy is regarded as a sustainable development path that is based on addressing the interdependence between economic growth, social protection and natural ecosystems. This view is in line with the country's vision on sustainable development, which states that ‘South Africa aspires to be a sustainable, economically prosperous and self-reliant nation state that safeguards its democracy by meeting the fundamental human needs of its people, by managing its limited ecological resources responsibly for current and future generations, and by advancing efficient and effective integrated planning and governance through national, regional and global collaboration’ (NFSD 2008). In addition, various existing policies, strategies and plans are linked to the transition to a green economy in South Africa.

For the purpose of the green economy modelling for South Africa, an inception meeting between DEA and UNEP was held in late 2011 in order to discuss, among other things, the sectors that will play a major role in the transition to a green economy (Musango, Brent and Bassi 2014). Eight sectors were identified: (i) energy; (ii)

agriculture; (iii) manufacturing; (iv) recycling (waste management); (v) tourism; (vi) transport; (vii) water; and (viii) ecosystem services (natural resource management).

To refine and prioritise the sectors for SAGEM, there was a need to interface with policy-makers and stakeholders in other government departments, research institutions, civil society, and non-governmental institutions. This was achieved through a Green Economy Technical Workshop, which was organised by DEA in partnership with UNEP and UNDP, and facilitated by the Millennium Institute, the Sustainability Institute and Stellenbosch University, in early 2012. The primary purposes of the workshop were (Musango, Brent and Bassi 2014):

> *Prioritise sectors of focus for SAGEM based on the above highlighted eight sectors; identify the South African specific targets for the green economy for the prioritised areas; and identify the possible scenarios for consideration in the modelling effort.*

2.5.1 Sector prioritisation

The participants at the Green Economy Technical Workshop were organised in three groups to address the above objectives and reported their discussion in a feedback session. In terms of identifying the areas of focus, it was agreed that four areas should be considered in SAGEM given the time constraints and data availability for the modelling process (NFSD 2008).

The criteria that were used by the participants to prioritise the key areas mainly revolved around aspects of employment and localisation (e.g. manufacturing), addressing inclusivity and inequality, attracting funding and improving competitiveness, and the availability of data to support the analysis of the respective sectors. Energy and transport featured in all top four priority lists of the groups; natural resource management and agriculture featured in two groups (NFSD 2008). Thus, the four areas that were finally selected were: natural resource management (NRM), agriculture, transport and energy.

2.5.2 Targets definition

With respect to prioritising the targets, the participants generally felt that it was challenging to quantify the targets. It was therefore decided that the medium-term (2020) and long-term (2030) targets should be defined employing the existing policies and plans such as the New Growth Path and the National Development Plan (Musango, Brent and Bassi 2014).

2.5.3 Scenario definition

In terms of defining appropriate scenarios, there was limited time for the participants to explore the possible scenarios. There were, however, some indications of the issues to be investigated in the modelling effort, including, among others:

- The South African economy growth between 4 and 7% on average per year by 2030;
- A global ‘double-dip’ recession, as experienced in 2008, between 2012 and 2017;
- Global warming of between 4 and 6°C; and
- Depletion of natural resources, specifically a ‘peak oil’ and ‘peak coal’ (for South Africa) by 2020.

Green marketing plays a role in the implementation of these green economy “polices” since it is the consumer who will dictate the pace in this industry. Their choice to buy green products for the good they provide to the environment will increase market share for companies that are following the trend. This will force other companies to comply owing to their methods which are soon to go obsolete (Musango, Brent and Bassi 2014).

2.5.4 South African examples of green companies

Green marketing is still in its early stages in South Africa. Awareness is still lacking within companies and the general population (Thakur and Gupta 2012: 122). However, there are companies in South Africa that are selling green products and contributing to the raising of awareness within the general population. Companies that are promoting green products are discussed next.

As stated above, there is still dearth of companies that solely specialized in green products and services. Hence, this study will be focusing on two known company that provide green services and products in South Africa, namely Green Worx Cleaning Solution and Tuffy Brands.

Green Worx Cleaning Solutions is South Africa's leading developer and manufacturer of green cleaning products that are kind to people and the environment. The range is based on proven, world class eco-friendly solutions that can eliminate all forms of dirt and grime without using harmful chemicals or damaging the fragile eco-system (Greenworx 2013)

The benefits of using their products are that they work with specially selected bacteria and natural enzymes to break down dirt and grease into organic nutrients which are then released safely back into the environment. The key benefits are that harmful chemical compounds are not released into the atmosphere or into water systems and also that your workers are not exposed to toxic fumes and chemicals. This increases safety and productivity while reducing staff absenteeism. Also, the more regularly the Green Worx products are used, the more effective they become. Their products include green cleaning solutions suitable for floors, carpets, surfaces, special purposes, laundry and dishwashing cleaners and detergents, septic tanks, grease traps as well as hygiene and odour control products for restrooms. The products are also ideal for homes, businesses, restaurants, hospitals, clinics, food manufacturers, cleaning contractors, sanitation and hygiene companies, facilities management companies, engineering plants, wastewater treatment operations, shopping malls and restrooms (GreenWorx 2013).

Tuffy Brands is a Cape Town-based company which was established in 1986. It specializes in the manufacture of flexible plastic and paper products for the retail, industrial, advertising and marketing industries. Environment News Press Centre South Africa (2016) revealed that Tuffy brands manufactures plastic bags for Checkers which are made of 100% recycled material, and it won an award in 2012 for this. In announcing the winner South African Plastics Recycling Organisation (Sapro) said about 19% of all plastic products made in 2012 were recycled in the same period, although the recycling rate is not increasing rapidly enough to make an impact on the plastics waste going to landfills each year. As a result of the increasing population,

urbanisation and a growing middle-class society, the tonnages going to landfills are increasing faster than the tonnages recycled (Environment News Press Centre South Africa 2016).

2.6 Imperativeness of green products

Following the financial crisis of 2008, the green economy concept has been mainstreamed in the economic debates, and it is currently being utilised to shape development strategies and economic growth in several developing countries. The main drivers for the transition towards a green economy include, among others, the continuing pressure imposed on finite natural resources; increased awareness of the need for energy and water security; concerns about global climate change; and intergenerational justice (Musango, Brent and Bassi 2014; Joshi and Rahman 2015). A long-standing perception among both the general public and policy-makers has been that the goals of economic growth, environmental protection, and national energy security involve a complex set of trade-offs (Brown and Huntington 2008). Accelerating environmental, economic, social and technological change challenges the decision- and policy-makers to learn at a faster rate, while at the same time the complexity of the environment, in which we live, continues to increase. Many of the challenges that humanity face today are related to unforeseen side-effects arising from actions in the past (Musango, Brent and Bassi 2014).

The purpose or importance of going green is to use products and methods that would not negatively impact on the environment through pollution or depleting of natural resources (Robinson 2008). Clem (2008) adds that going green reflects a social consciousness around saving and advancing the earth's natural resources, preserving and protecting them for the sake of civilisation. As customers become more aware of the environmental issues, there is an increase in the demand for ecologically safe products. This increased awareness of and sensitivity towards environmental issues places certain demands on business functions to become greener (Joshi and Rahman 2015).

Further, research suggests that the impact of socially responsible initiatives on stock price are directly associated with any positive or negative effects of the initiatives (Müller and Wikström (2016). The findings suggest that the stock market is efficient,

thus any positive or negative effects of socially responsible initiatives will be immediately reflected in the price of the stock. The recent oil spill by BP sheds light on the potentially devastating impact that the lack of green practices can have on the short- and long-term performance of the company, as BP's stock price and credit rating have plummeted (Rompotis 2010). Going green therefore is important for the future of the economy and civilisation. Companies going green can provide necessary leadership in the green movement, work wonders for the environment, significantly improve their bottom lines and show they are excellent citizens.

Thus, there is a growing awareness among consumers all over the world regarding protection of the environment in which they live, as people do want to bequeath a clean earth to their offspring. Various studies by environmentalists indicate that people are concerned about the environment. Now we see that most of the consumers prefer products that are recyclable, non-toxic and environment-friendly. So, this has become the new tune for marketers to satisfy the needs of consumers and earn better profits (Lee 2008).

2.6.1 Imperativeness of adoption by companies

Studies by Hart (1995), Hart and Milstein (2003), and Hart and Dowell (2011) reported that in today's business world, an organisation's competitiveness is intertwined with its environment activities. As such, the early work of McGrath *et al.* (1995) noted that initiating new practices that lead to the development of new products, new markets, and new technologies such as green products can be considered as a main mechanism for developing competitive advantages. Similarly, Masoumik *et al*. (2015) alleged that innovative environmentally related practices that lead to producing new green products, developing new clean technology, and developing new market opportunities, would improve or generate organisation competitive advantage.

In addition, and in view of the above, Nadaf and Nadaf (2014) acknowledge that most companies are venturing into green marketing because of the following reasons, namely:

1. **Opportunities** – Many of the companies find green marketing to be an opportunity to exploit and have a competitive advantage over companies marketing non-environmentally responsible alternatives. Some examples of

companies who have striven to become more environmentally responsible, in an attempt to better satisfy their consumers' needs, are:-

- Big brands like Adidas, Reebok, Lotto, and Nike are using paper bags for packing their products and cotton tags instead of plastic tags.
- Xerox introduced a "high quality" recycled paper in an attempt to satisfy the demands of companies for less environmentally harmful products.
- Kansai Nerolac Ltd has worked on removing hazardous heavy metals from their paints (Sao 2014).

2. **Government pressure** – Various government agencies have been formed to protect the consumers and society e.g. the Central Pollution Board of India which is an autonomous body under the Ministry of Environment and Forest (MoEF), plays an important role in drafting guidelines and advising the MoEF.

3. **Competitive pressure** - Another major force in environmental marketing has been companies' desire to have an edge over competitors. This competitive pressure has caused an entire industry to modify and thus reduce its detrimental environmental behaviour. For example when Xerox introduced 100% recycled photocopier paper other manufacturers had also started introducing recycled photocopier paper (Gupta, Jankowska and Maiti (2007)).

4. **Social responsibility** - Many companies are beginning to realize that they are members of the wider community and therefore must behave in an environmentally responsible manner. This translates into companies who believe they must achieve environmental objectives as well as profit related objectives. This results in environmental issues being integrated into the company's corporate culture. Keeping this in mind companies like WIPRO technologies have been producing sustainable IT products and solutions which help customers achieve high productivity in energy, space and asset management through the life cycle. They have launched green ware ranges of desktops which are not only 100% recyclable but also toxin-free (Coddington 1993; The Economic Times 2007).

2.7.2 Imperativeness of adoption by governments

The economy of the world faces serious difficulties due to global warming and greenhouse gas (GHG) emissions (Mohajan 2011). Green marketing is in the focus of present marketing strategy due to the pressure that comes from inclined environmental awareness in the global climate change. Therefore, the marketers need to include a green approach in framing the marketing programs. There are several suggested reasons for governments increased use of green marketing and some of them are as follows (Kathambi 2014).

In the 21st century consumers have become more conscious about safer and healthier lives and healthy environments. Obviously, the customers always want to buy eco-friendly and environment harmless commodities for their daily lives. In 2007 green marketing came into the mainstream of global business and captured the public awareness. The best example of green marketing issues to help to make the environment safe and eco-friendly is from printing machines industries which are trying to be greener by reducing emissions of Volatile Organic Compounds (VOCs), handling of contaminated water and toxic waste as well as tracking of inks, solvents and other chemicals (Chaudhary and Seth 2011). There are many opportunities of green marketing. Recently companies marketing goods with environmentally safe practices have realised a competitive advantage over companies marketing non-environmentally responsible alternatives. Some companies have determined benefits of using green marketing technologies (Mungeria 2014). The government of a country can stress to produce green marketing commodities to reduce production of harmful goods or by-products, to modify consumer consumption of harmful goods. These governmental regulations are designed to control the amount of hazardous wastes produced by companies. Government can impose a tax on production or use of non-green marketing products. For example, in Australia there is a higher gas tax associated with leaded petrol. A company can produce green marketing products to teach other companies the importance and demand of it. For example, it could be argued that Xerox's Revive 100% Recycled paper was introduced in the market a few years ago in an attempt to address the introduction of recycled photocopier paper by other manufacturers (Mungeria 2014).

2.7 Level of awareness, lack of information and uncertainty of place of purchase of green products

The relationship between the marketing discipline, the public policy process and the natural environment is of great importance (Hashem and Al-Rifai 2011). It has also been noted that the influence of the green consumer will grow as environmental awareness among consumers spreads and improvements are made to the environmental information available through eco-labelling schemes, consumer groups and consumer guides. According to Ginsberg and Bloom (2004) individual people are more trusted to take significant actions to protect the environment than government or individual companies (Hashem and Al-Rifai 2011). Mohanasundaram (2012) has considered a green consumer as more educated and wealthier than the average consumer. In Europe, as 30% of the participants in a study by Cohen and Wolfe, Landor (2009) mentioned that they spent more than 50 euros per month on green products (Radu 2013). In contrast, Ottman *et al.* (2013) conclude that South Africans spend an insignificant amount on green products due to the low level of awareness of green products in South Africa.

The rise in consumers' ecological consciousness in recent years has increased their willingness-to pay for green products (Machiba 2010). Geyer-Alléye and Zacarias-Farah (2002) point out that 27% of consumers in OECD countries can be labelled “green consumers” due to their strong willingness-to-pay and strong environmental activism. A total of 10% of these are “green activists” with high environmental activism, but lower willingness-to-pay. The others are “latent greens” (40%) or “inactive” (23%). In its 2005 paper on the effects of eco-labelling schemes, the OECD has compiled several studies revealing greater consumer willingness-to-pay for eco-labelled products. The 2008 Euro-barometer shows that 75% of Europeans are “ready to buy environmentally friendly products even if they cost a little bit more.” However, only 17% of these declare having recently bought such “products marked with an environmental label” (Geyer-Alléye and Zacarias-Farah 2002). A reason may be the inability of 42% of them to discriminate environmentally friendly products from other products even with an eco-label. Another reason can arise from the fact that some of them think that responsible consumption is synonymous with a lower consumption, like 75% of French people questioned by Ademe and Ethicity (2008). It may also be that the consumers

are unaware of stores where they can buy green products. The question of the determinants of demand for “green products” is thus particularly significant (Brécard *et al.* 2009).

Finisterra do Paço, Raposo and Filho (2009) agree with Landor *et al.* (2009) and attest that the high cost of green products has led to resistance among consumers who are reluctant to buy green products, because of the risks they perceive in terms of quality, price, lack of information, and uncertainty as to the place of green products in society. Hence, it can be inferred from above that due to wrong perceptions or lack of sufficient information on green products, this has had an adverse effect on some of these products (Finisterra do Paço, Raposo and Filho 2009).

This analogy shows that consumers are most of the time unaware of what green products really are. There is thus a need to educate the consumer especially in South Africa since the concept of green marketing is in its early stages and consumers are unaware of its advantages (Musango, Brent and Bassi 2014).

2.8 Perceptions on price of green products

There is controversy about the prices that consumers will pay for green products in comparison to what consumers would pay for mainstream products. Can this market be differentiated? Some contradictory findings indicate that no niche market exists for green products and consumers will not pay higher prices for these products and higher prices of green products may be unavoidable due to the additional cost of verification procedures without an anticipated gain in market share (D'Souza *et al.* 2006). However, no evidence shows that consumers’ environmental concerns are manifested in their purchasing behaviour and that consumer claims stating that they were willing to pay more for green products have not been matched by their actions. It has been found that consumers may over-report their intentions to purchase or intensify strong attitudinal preferences towards socially responsible behaviour when responding to environmental issues (D'Souza *et al.* 2006; Kumar and Ghodeswar 2015).

Marketers have also found that consumers are price-sensitive when it comes to “buying green” (Mandese 1991) and are unwilling to pay a premium price for green products (Wasik 1992). A common mistaken notion that one fails to consider is the

trade-off in attributes that consumers use when making choices. It appears that price, convenience and value are the most important buying criteria (Roberts 1996). Consumers have displayed a willingness to respond to green concerns whilst not compromising on performance, convenience and price (Goss *et al.* 2011).

Even when researchers have explicitly considered consumers' actual purchase behaviour, it involved factors beyond the ecological status of the brands examined (Henion 1972). To examine this, D'Astous *et al*. (1997) measured perceived purchase value and intention to buy, variables, which do not predict behaviour. Their findings indicated that environmental features had a significant relationship to both purchase value and buying intentions and while environmental features enhanced the desirability of the product, the essential choice criterion was efficacy. Can consumer perceptions on higher price and low quality influence green buying behaviour? (Goss *et al.* 2011).

The desire to buy green products, although far from being a fad, has not always resulted in product purchase. For instance, sale of hybrid cars, long considered as fuel-efficient and green, only accounted for 3.5 per cent of the cars sold in the US market in 2010 (Berman 2011). Similarly, in the American cleaning products segment, though companies such as Seventh Generation and San Francisco's Method Products have been making natural cleaning products for years, their combined sales amount to only 1% (Goss *et al.* 2011b). Highlighting this as a worldwide trend, Mckinsey and Company's global poll reported that only 33% of those surveyed had bought a green product during the previous year even though 87% expressed a strong interest in purchasing green products (Bonini and Oppenheim 2008).

Price is often cited as one of the inhibitors of green product purchase (Ewing 2009), although some consumer surveys point to consumer willingness to pay a premium for the same (Falkner 2007). This raises an interesting question pertaining to how consumers may trade-off green aspects of a product when assessing its price (Bonini and Oppenheim 2008; Biswas 2016). Specifically, we begin by asking if consumers expect to pay relatively higher price for green products.

Furthermore, companies often try to get around the cost of developing completely green products by joining the green bandwagon by promoting traditional offerings in

their line-up as somewhat or partially green alternatives (e.g., Toshiba's A600 laptops running on low voltage; HP desktop PCs featuring AMD's 'Cool 'n' Quiet' processors). In the recent past, only a few companies have worked on plans to increase their offerings of completely green products (e.g. the Toyota Prius). A second issue, then, is to understand whether consumers process price information differently for complete and partially green products (Goss *et al.* 2011b).

Given the gap between interest and actual purchase, will consumers' motivation to purchase a product differentially influence the way they process such higher prices when products under consideration are: a) completely green products and b) with few green attributes (i.e. partially green)? Past research on information processing proposes that consumers are cognitive misers (Hauser and Shugan 1980; Willcox 2015), the idea also embodies that efficient information processors must strike a balance between minimizing their processing efforts and maximizing their judgmental confidence.

Maheswaran and Chaiken (1991) proposed the *sufficiency principle* which suggests that consumers cannot be completely confident that their judgments are correct and can only hope to achieve some level of confidence (sufficiency threshold), which is benchmarked against their desired level of confidence. Based on this principle consumers would step up their efforts to systematically process information when less effortful heuristic modes confer insufficient judgment confidence; a discrepancy in product attribute information would encourage consumers to scrutinize the given information. Integrating these conclusions with research on consumers' use of price as a dual cue to infer quality (Miyazaki, Grewal and Goodstein 2005) and assess monetary sacrifice (Suri and Monroe 2003), it may be predicted that participants who are motivated to process information will use a relatively high price of a green product, irrespective of whether it is completely or partially green to conclude that it requires a high monetary sacrifice. In low motivation conditions, a completely green product would be processed heuristically and its high price will be used more to infer that it is of high quality. More importantly, despite low motivation to process information, a partially green product at a high price will be processed systematically, and its price will lead to perceptions of a high monetary sacrifice (H'Mida 2009; Goss *et al*. 2011b).

A series of three studies that examined this issue was done by Greenwald and co-workers. In Study 1, using semantic association task and implicit association test (Greenwald, Nosek and Banaji 2003), they confirm differences in associations between products described as completely and partially green. In study 2, participants were first provided with a description of a green product and an average price (P) for a similar conventional product. Participants then indicated their willingness to pay (WTP) for the green product. Three products, a tote bag, a metallic water bottle and a jump drive, were randomly presented; to the participants. Their results revealed a significant price appreciation [(WTP- P) / P; 28% - 177%] for the green products over their conventional counterparts affirm the perceived expensiveness of such products (Goss *et al.* 2011).

Study 3 tested predictions by examining how a relatively expensive ($399.99) environmentally friendly printer described as either completely green (all green attributes) or partially green (one green attribute) will be perceived by participants with different processing goals towards its purchase (low vs. high motivation). The results revealed that in high motivation conditions, printers were perceived high on monetary sacrifice irrespective of the number of green attributes associated with them. Also in low motivation conditions, the printer was perceived as less expensive when it was described as completely green. More interesting was the result that in low motivation conditions, descriptions of the partially green printer were processed systematically and it was perceived to be expensive compared to the completely green printer (H'Mida 2009).

Overall, their results seemed to suggest that consumers with no assigned purchasing goals were willing to pay more for a green versus a comparable conventional product. Assigning purchase responsibility for a product enhanced attention to its price and the evaluation of its monetary sacrifice was not impacted on by the number of green attributes used to describe that product. In low motivation conditions, participants relied less on price to assess monetary sacrifice but more on inferring product quality when its description was dominated by green attributes (Goss *et al.* 2011).

However, inconsistency between its high price and a few green attributes, i.e., partially green product, resulted in a heightened attention to price which was then used to infer that the product required a high monetary sacrifice. Hence, though green products are

perceived as expensive (DeBare 2008), the results suggest that “greenness” of a product is a cue which when diluted, as in case of partially green products, may reduce consumers’ willingness to pay high prices (Goss *et al.* 2011).

2.9 Factors affecting adoption of green products

In the last decade, Chen and Chai (2010) noted that the consumption of goods and services has increased tremendously across the world, which has resulted in the depletion of natural resources and severe damage to the environment. Of concern, however, is that Chen and Chai (2010) have pointed out that some serious repercussions such as global warming, increase in environmental pollution, and decline in natural flora and fauna have resulted from environmental damage. Consequently, Kumar and Ghodeswar (2015) hinted that the awareness of the destruction of natural resources from human activities has raised the issue of environmental protection, and environmental consciousness in consumer behaviour. This in turn, has increased their demand for green products in the market worldwide. Their work corroborates what Joshi and Rahman (2015) said - that various countries across the world are beginning to realise the threat of environmental damage and have started working towards minimising the harmful impact of their business on the environment. In light of this, the next section have highlighted factors that may affect the adoption of green products by consumers.

2.9.1 Factors affecting adoption of green products by consumers

There are various factors that influence practices of green marketing as discussed in this section.

2.9.1.1 Knowledge about green practices

Knowledge about green practices evolves in two forms. Firstly, the consumers have to be educated to understand the general impact of the product on the environment, and secondly the consumer’s knowledge of the product itself being produced in an environmentally friendly way (D'Souza *et al.* 2006). Globalisation has increased the consumer power by changing the seller’s market to a buyer’s market. This has resulted in a shift from “push” where delivery schedules’ originate from producer, to “pull” where producers implement delivery schedules only after customer acceptance (Joshi *et al.*

2016). If therefore, consumers exhibit a high degree of ecological consciousness and channel it to corresponding eco-friendly purchases, it is likely that profit driven enterprises will be strongly motivated to adopt the concept of green marketing practices in their organizations (D'Souza *et al.* 2006).

Most consumers would like to make rational choices in situations concerning the purchase of environmentally friendly products, thus they would want enough information to be fully aware of and knowledgeable about environmental problems and issues to form an opinionative or attitudinal view in order to choose according to their intentions. As Laroche, Kim and Zhou. (2001) pointed out; the education of the consumer is an appropriate method for increasing perceived convenience and establishing credibility in terms of being environmentally friendly. This is referred to as Eco-literacy, which is used to measure the respondents' ability to identify or define a few ecologically related symbols, concepts and behaviours. It has been found to be correlated with some attitudes and behaviour toward the environment (Laroche *et al.* 2001).

Ottman (2009) has suggested various strategies that may help companies to make reasonable progress toward environmentally oriented business philosophies. Undertaking environmental audit to assess current performance, being proactive by going beyond what is expected, being a visible CEO who demonstrates commitment to environmental issues, empowering employees on environmental issues and constantly integrating, learning, refining products and services and regularly reporting an environmental performance through annual reports and special advertising and public relation efforts. This is the adoption of eco-marketing orientation as a business philosophy (D'Souza *et al.* 2006; Obayelu 2016).

Vindigni *et al.* (2002), pinpoint that there is a growing demand for organic foods. The growth is expected to continue in the coming years. As this window of opportunity, organizations are increasingly targeting consumers who are concerned about the environment (Miles and Covin 2000). In 1989, 67 per cent of Americans stated that they were willing to pay five to ten per cent more on ecologically compatible products and by 1991, environmentally conscious were willing to pay between fifteen to twenty per cent more for green products (Laroche, Bergeron and Barbaro-Forleo 2001; Hsu 2016).

2.9.1.2 Interpersonal influence

Interpersonal influence primarily consists of the impact of acting to persuade, convince or influence others to having a specific effect. An important determinant of an individual's behaviour is the influence of others (Bearden, Netemeyer and Teel 1989). According to social cognitive theory, the process of interpersonal influence advocates a bilateral-directional interaction that also occurs between environmental and personal characteristics (Bandura 1989). As part of this process, social influences and physical structures within the environment develop and modify human expectations, beliefs and cognitive competencies. In addition, humans evoke different reactions from their social environment as a result of their physical characteristics, such as age, size, race, sex and physical attractiveness (Bandura 1989; Cantor 2013).

The social influences of peers, family groups and influential bodies can convey information and activate emotional reactions through factors such as modelling, instruction and social persuasion (Bandura 1989). Social environments such as family, friends and peer networks (normative susceptibility) strongly influence buying decisions that involve environmentally friendly products. Interpersonal processes and relationships between opinion leaders and professionals are likely to have a substantial impact on similar attitudes towards buying decisions (informational susceptibility). Stafford and Cocanougher (1977), and Jansson, Marell and Nordlund (2010) suggested that the lack of consideration of the effects of interpersonal influence on the development of attitudes, norms, values, aspirations and purchase behaviour may hinder the understanding of the essence of consumer behaviour.

2.9.1.3 Value orientation

The term “value” has been defined as an enduring prescriptive or proscriptive belief that a specific end state of existence or specific mode of conduct is preferred to an opposite end state or mode of conduct for living one's life (Kahle 1996). The two most frequently studied values in research on environmentally friendly products and ecological behaviour are collectivism and individualism (Liobikienė, Mandravickaitė and Bernatonienė 2016). Kim and Choi (2005) proposed that value orientations are believed to guide consumers’ concerns for environmentally conscious behaviour. For example, consumers who are collectivistic (pro-social) tend to be more concerned

about the environmental consequences and tend to engage in environmentally conscious consumptions, such as switching from conventional to green products for environmental protection and avoiding a product that is detrimental to the environment than consumers who are individualistic (pro-self) (Kim *et al.* 2012).

McCarty and Shrum (2001) examined whether value orientation and economic status at an individual level have an influence on beliefs about the importance of recycling. The study revealed that individuals who have pro-social beliefs about the importance of recycling are positively related to the propensity to recycle. However, for those who are pro-self, the importance of recycling is not a motivating issue, only the inconvenience of recycling predicts their behaviour (McCarty and Shrum 2001; Gadiraju 2016).

2.9.1.4 Perceived product necessity

Two product categories are examined, viz. luxury and necessity items. Luxury items tend to have a degree of exclusivity, and are thus usually more expensive and of higher monetary risk than necessities (Sharma, Shimp and Shin 1995). Moreover, the risk of a bad purchase and the hedonistic value of luxury products are characteristics of a complex task where the purchase decisions become more elaborate, important and time-consuming, such as purchasing luxury products (Solomon 2014). On the contrary, necessity items tend to represent commonly owned products, and as such signify a lower monetary risk and hedonistic value, and involve less complexity in terms of decision-making.

When a product is perceived as a necessity, it is expected that consumers' attitudes towards the environment should play a relatively minor role in affecting purchase behaviour, or in this case, the willingness to buy environmentally friendly products. On the other hand, it is likely that consumers' attitudes towards the environment in relation to items that are dispensable should have a more substantial impact on purchase behaviour (Solomon 2014). On logical grounds, it could be expected that personal preferences and desires (a product necessity) would counteract the more altruistic and non-self-centred motives contained in the “ideal” attitudinal view. Performing companies are less likely to engage in socially responsible behaviours. Similarly, the impact of company financial performance has been shown to have an impact on

perceptions of social responsibility as financially superior companies may appear to be more socially responsible than their economically-depressed counterparts (Mungeria 2014).

2.9.2 Factors affecting adoption of green marketing by companies

Poorly conceived approaches to marketing are another reasons where terms like green, sustainable, and environmentally friendly are misused, leading to green washing and confused, sceptical consumers. Peattie and Crane (2005) and Vazifehdust, Taghipourian and Gharib (2011) describe four critical issues that have "dogged the development of green marketing" as follows:

- Green marketing companies have frequently used the environment as an additional promotional dimension without any attempt to analyse or modify the underlying product itself and its environmental impacts.
- Many companies have sought to address consumers' needs, but their interest in the environment has been limited to the marketing department, or the production department, or some other individual function. This has prevented companies from developing a broad, holistic approach to green marketing.
- Many companies have been enthusiastic about green marketing when it involved short-term cost savings; but lukewarm when it came to investing money in order to develop more sustainable products and processes.
- Green marketing activities also have focused on avoiding any significant changes, and focusing instead on marginal, incremental improvements to existing products and processes. As our resources are limited but human needs and wants are unlimited, resources have to be utilized economically and in an environment friendly way. In this situation the green marketing will play an important role in sustainable development.

2.10 Challenges of green marketing and consumer satisfaction

The concept of green marketing promises to create a better environment; however, it faces some challenges (Adams 2015). As illustrated in Figure 2-3, these challenges are:

- The “GO GREEN” and green marketing notions are comparatively new concepts; hence it will take some time for the masses to accept it. There is a need to create a lot of awareness about this concept. The message needs to be spread intensively among the masses to ensure every person is aware of green marketing and GO GREEN initiatives. This will make it easier for the masses to be a part of this initiative.
- A lack of standards or benchmarks to measure the authenticity of messages from green campaigns, dampens the long-term benefits of green marketing.
- Green products require renewable and recyclable material, which is costly. The majority of the consumers are not willing to pay a premium for green products. One of the main problems is that companies using green marketing must ensure that their activities are not misleading to consumers or industry, and do not breach any of the regulations or laws dealing with environmental marketing.
- Another problem companies face is that those who modify their products due to increased consumer concern must contend with the fact that consumers' perceptions are sometimes not correct, as in the McDonald's case where it has replaced its clam shells with plastic coated paper. When companies attempt to become socially responsible, they may face the risk that the environmentally responsible action of today will be found to be harmful in the future.
- It is not possible to implement green marketing without increasing the cost of the product. Some of the customers, who are aware of the environmental problems, are willing to pay for the increased cost, but most of them resist the increased price. In the light of increased competition, it is not practically feasible for the marketers to charge higher prices to their customers. So, they face a problem in implementing green marketing. Another big problem is implementing the laws made by the government as the enforcement machinery is often not tuned up to implement the laws made by the government. Convincing customers: the first and foremost challenge in green marketing is convincing the customers. Many a time the customers may not believe in the company's strategy of green marketing, therefore the company should ensure that they take all possible measures to convince the customer about their green product and the best possible way for this is by implementing.
- Cost Factor: Green marketing involves marketing of green products/services, green technology, green power/energy for which a lot of money has to be spent

on R&D programmes for their development and subsequent promotional programmes which ultimately may lead to increased costs. Stakeholders' non-cooperation: The companies practising green marketing have to see the long-term benefit. But many a time it is not possible for them to convince the stakeholders about the same (Tekade and Sastikar 2015).

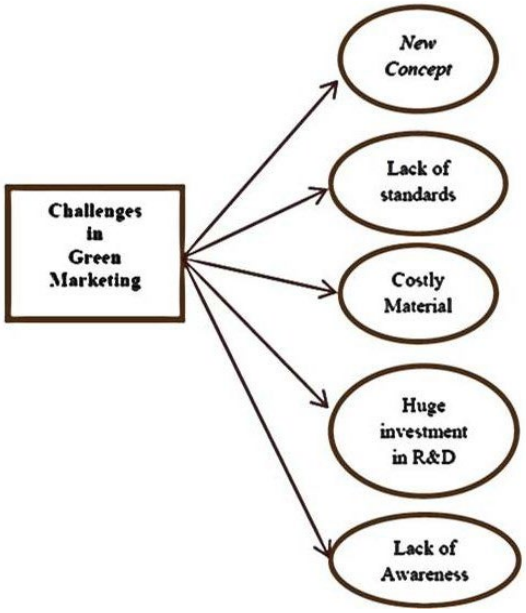

Figure 2-3: Challenges in green marketing (adapted from Dubey (2014))

Green marketing has certain objectives to be fulfilled for its inclusion in the business arena to be meaningful. Green marketing is faced with several specific challenges depending on factors such as the variability of demand, unfavourable consumer perception and high costs. Though there are several challenges and of a different nature in its effective implementation the world over, with proper planning and strategy one can fill the winning seat. All this can be understood from the success stories of many companies. In fact, it can be realized that green marketing has come up as a saviour for developing countries and it can be truly said that it provides an opportunity for them to prove themselves and carve a niche for themselves (Tekade and Sastikar 2015).

2.11 Conclusion

We are living on the edge of the industrialisation civilisation, and going green marks the end of the industrialisation cycle of civilisation. Soon all resources will be finished and going green will provide a smooth transition into another civilisation which does not depend heavily on non-renewable materials. Green marketing is thus an essential tool of research especially in developing countries where it is still in its initial stages.

In summary, this chapter outlined the different stages in the development of green marketing. The concept of green marketing and its characteristics such as reject, recycle, reuse, reduce, and reduce were highlighted. The foregoing review further highlighted the development of green products in South Africa with an emphasis on Green Worx cleaning solution and Tuffy Brands. Furthermore, the concept of product quality was reviewed as it is an underpinning concept with regards to assessing the quality of green products by consumers. Overall, adopting of green products by consumers significantly depends on the knowledge of green practice, interpersonal influence, value orientation, and the perceived product necessity. The next chapter describes the philosophical stance of the research design and methodology adopted in the present study. The data sampling and method of analyses will be discussed in detail.

CHAPTER 3: Research design and methodology

3.1 Introduction

This chapter outlines the research design for this study. A mixed research approach was applied, which consisted of a combination of qualitative and quantitative techniques. Also presented in this chapter is the sampling design as well as the selected methods used in analysis and interpretation of data. The target population was defined. Thereafter, the sample size for this research study is discussed. Furthermore, aspects such as reliability, validity, sampling method, data-collection instruments and pilot testing initiatives are considered and lastly, the ethical considerations are presented.

3.2 Research aim, questions and objectives

3.2.1 Research aim

The primary aim of this study is to investigate the perceptions of green marketing of retail managers and consumers at selected Pick n Pay retail stores in Durban.

3.2.2 Research questions

This study investigated these issues from a management/supervisors' perspective.

- Are retail managers and consumers aware of green products at selected Pick and Pay stores in Durban?
- What perceptions of green product quality, according to retail managers and consumers, affect consumers' adoption of green products at selected Pick and Pay stores in Durban?
- What perceptions of green product price, according to retail managers and consumers, affect consumers' adoption of green products at selected Pick and Pay stores in Durban.
- What perceptions of green product information availability, according to retail managers and consumers, affect consumers' adoption of green products at selected Pick and Pay stores in Durban.

- What are the reasons for adoption/non-adoption of green products among consumers, according to retail managers and consumers themselves.

3.2.3 Research objectives

To achieve the aim and questions the following objectives have been established:

- **Research objective 1**: To determine the level of awareness of green products among retail managers and consumers of selected Pick n Pay retailers.
- **Research objective 2**: To determine the perceptions of quality among retail managers and consumers of selected Pick n Pay retailers affecting adoption of green products.
- **Research objective 3**: To determine the perceptions of the price among retail managers and consumers of selected Pick n Pay retailers affecting adoption of green products.
- **Research objective 4**: To determine the perceptions of the availability of information on green marketing/ products among retail managers and consumers of selected Pick n Pay retail stores in Durban affecting adoption of green products.
- **Research objective 5**: To determine the reasons affecting the adoption of green products among consumers, according to retail managers and consumers themselves.

3.2.3 Hypothesis

As stated in Chapter 1, Section 1.7, the formulated hypothesis for this study was:

H_1: Consumers in South Africa have different levels of awareness of green product.

H_0: There are no difference in the level of awareness of green products among consumers in South Africa.

3.3 Research design

According to Mouton (2006:55), research design is a plan of how the study is to be conducted. Cohen, Manion and Morrison (2007:78) pointed out that a research design is governed by the concept of “fitness for purpose”. In the context of educational research, this implies that the investigated approach that is adopted must be best suit its problem and its setting to make the research credible legitimate and practicable. Essentially, this study adopted a mixed research approach which comprises of quantitative and qualitative data collection approaches.

According to the definition by Creswell and Clark (2007:7) mixed-method research involves both collecting and analysing quantitative and qualitative data, where quantitative data include closed-ended information such as that found on attitude, behaviour, or performance instruments. Mixed-method research is the type of research in which a researcher or team of researchers combine elements of qualitative and quantitative research approaches for the purpose of breadth and depth of understanding and validation (Creswell and Clark 2011:4). Significantly, and as noted by other studies (Creswell 2009; Creswell and Plano-Clark 2011; Johnson and Christensen 2012), mixed-method approaches allow the researcher to build knowledge on pragmatic grounds, and in doing so permits him/her to draw from both quantitative and qualitative assumptions. It is on this premise that both qualitative and quantitative methods were employed in this study because different methods are warranted at different stages of the research to gain a more holistic understanding, particularly with regards to the concept of adopting green products by consumers in South Africa.

Furthermore, and as indicated by Welman, Kruger, and Mitchell (2005), when a researcher conducts research to investigate a research hypothesis or a given research question, the researcher tends to collect data from the objects of his/her enquiry to solve the problem concerned. The results that are obtained should, therefore, shed light on the tenability of the hypothesis and it should give an indication of whether to accept or reject the hypothesis. The aforementioned assertion supports the early work of Yin (2003), who moots the notion that the research approach is the logical sequence that connects the empirical data to a study’s initial research questions and, ultimately, to its conclusions. In addition, Babbie and Mouton (2005) indicated that the research

design addresses the planning of scientific inquiry in designing a strategy for finding out something.

The research approach adopted for this study therefore uses both deductive processes (testing ideas against observations) and inductive processes (developing ideas from observations). Deductive processes are generally associated with quantitative research, and inductive processes with qualitative research (Creswell *et al.* 2011; Check and Schutt 2012). Creswell and Plano-Clark (2011) stressed that by combining both deductive and inductive processes, the researcher tends to base knowledge claims on pragmatic grounds.

Descriptive research was also found relevant and appropriate for this study. Veal (2006:6) stresses that descriptive research can be described as exploratory since it discovers areas or activities which have not been studied previously. Thus, it is aimed at describing an existing situation as much as possible. In support of the above author, May (2011:224) suggests that descriptive research was discovered to be a valuable and valid tool for social research. Ultimately, in descriptive research the general tendency is particularization, which reflects a single setting to inform and add knowledge of a specific topic. In relation to this particular study, it is descriptive in nature due to the fact that there is little research conducted in the field of marketing and retail on green products within the area of Durban as well as in South Africa at large. This study thus seeks to gain an understanding with regard to the importance of green products as it also responds to the crises which the environment is faced with e.g., the climate change issues and so forth. This was framed on the assumptions that when consumers purchase more green products, somehow, the environment could be saved as these kinds of products are less harmful and eco-friendlier.

3.3.1 Quantitative research method

Leedy (1997:104-105) explained that quantitative research methods deal with inquiry into social or human problems such as the understanding of what green products is measured by numbers and analysed with statistical procedures, to determine authenticity of predictive generalisation theory. Resonating with the above author, McDaniel and Gates (2010:132) state that a quantitative research approach involves statistical analysis and relies on numerical evidence to test the hypotheses. Creswell

(2015:05) supports the above statements by stating that quantitative research draws conclusions for large numbers of people it also analyses data efficiently.

3.3.2 Qualitative research method

A qualitative research method, by contrast, is concerned with understanding a social or human problem in its natural settings in terms of the meaning people bring to them from the researchers own frame of reference (Nunan 1992: 4; Denzin and & Lincoln 1994: 2; Leedy 1997: 105). Neuman (1997:14) also considers qualitative research as a form of social reality, as it only focusses on interactive processes. Creswell and Clark (2007:06) indicated that qualitative instruments consist of open-ended information that the researcher gathers through the interviews with the participants, where the researcher is involved throughout the process of data collection. Creswell (2015:05) explains this further by stating that a qualitative approach is based on the views of participants, not of the researcher and it also captures the voice of the participant to validate the information.

3.4 Target population and sampling

Sekaran and Bougie (2013:240) define a target population as the entire group of people or items that the researcher is intending to draw a sample from. Walsh (2001:41) explains that the population may or may not consist of large numbers of people or items, because it is often impossible to distribute questionnaires or conduct interviews with every member of a population due to cost and time. Therefore, in this study, a sample of 250 Pick n Pay consumers were selected to answer the questions in the questionnaires as well as five supervisors per store chosen which sum up to 10 supervisors to be interviewed. Walsh (2001:42) refers to this as sampling. To summarise, Table 3-1 outlines these aspects of this study.

Table 3-1: Research Design

	Quantitative	Qualitative
Target population	All retail consumers	All retail managers

Sample	Pick & Pay consumers in the Durban	Pick & Pay retail managers in Durban
Sampling method	Purposive resulting in Pick & Pay consumers selected from the Musgrave and Berea outlets	Purposive resulting in Pick & Pay consumers selected from the Musgrave and Berea outlets
Sample size	200 consumers	10 retail managers

The detail outlined in the above table is discussed in more detail in the sections that follows.

3.4.1 Sampling method

According to Babbie (1998) and Creswell (2008), sampling is the process of taking a representative portion of a population with some common defining characteristic for study. Lemmer (2011:13) noted that sampling techniques are separated into two different types of sampling methods; namely probability sampling and non-probability sampling. Blanche *et al*. (2006:139) state that the probability sampling uses a statistical technique, which gives each member of the population an equal chance of being selected, while the non-probability sampling refers to a technique where the selection of elements is not determined by statistical principle of randomness. Given the nature of this study, particularly the heterogeneity of the target population, a non-probability purposive sampling was considered appropriate in investigating the Pick and Pay outlets within Durban, South Africa. This was in keeping with Babbie (1998: 195) who argues that it is considered appropriate for the researchers to select their sample based on their own knowledge of the population.

A purposive sampling technique was adopted in the current study, and was used to recruit Pick n Pay consumers as participants. With a purposive sample, the researcher is more likely to get opinions of the target population. According to Cohen, Manson and Morrison (2000: 103), in purposive sampling, the sample selection process is slightly different, because the researcher hand picks the participants or units to be included in the sample based on researchers' subjective judgement.

For the purpose of this research, one Pick n Pay retail store was selected from two different malls in Durban, KwaZulu-Natal. These included the:

- Musgrave Centre – Pick n Pay
- Berea Centre- Pick n Pay

Although nine Pick n Pay stores are located within Durban, Musgrave and Berea centre stores were, however, selected for the purpose of data collection due to their unique locations within Durban. For instance, the Musgrave Pick n Pay stores is located mainly within the sub-urban areas of Durban that is mostly patronized by more affluent consumers, whereas the Berea centre accommodate consumers from various socio-economic backgrounds due to its close proximity to the Durban market.

3.4.2 Sample size

A sample is a set of elements selected in some way from a population (Sapsford and Jupp 1996:25). The aim of sampling is to save time and effort, but also to obtain consistent and unbiased estimates of the population status in terms of whatever is being researched. Levy and Lemeshow (2013:47) assert that sampling is the process or technique of selection a suitable sample or representative part of the population for the purpose of determining parameters or characters of the whole population.

According to Churchill and Brown (2007:351), sample size is the number of elements chosen from the large group of the population. As illustrated in Table 3-2, sample of 200 respondents was used in this study. De Vos *et al.* (2005) argued that the most basic consideration in sampling is “size and representativeness”. As such, a sample is considered representative if the aggregate characteristics of the sample closely approximate the same characteristics as the population relevant to the research question (Maxwell 2012).

Table 3.1 indicates the number of questionnaires distributed to the selected individuals at the Pick n Pay retailers. A total of 200 respondents was chosen as Altunisik *et al*. (2004 cited by Delice 2010:8) assert that a population size ranging from 30 to 500 participants is suitable for a study. Mudaly (2013:46) mentioned that it is common that the larger the sample size the better and more reliable the research findings are. Table

3-2 is set out to reflect the exact number of questionnaires completed by respondents found at the selected Pick n Pay stores.

Table 3-2: Sampling plan

Urban Areas (Durban)	Sub Urban Areas (Durban)	Consumers Questionnaire	Managers interviewed	Total number of questionnaires/interviews in each store
Berea Centre Pick n Pay	Musgrave Pick n Pay	100x2	5x2	200+10
N				Total number:210

3.5 Data-collection instruments

3.5.1 Quantitative phase: Survey

A survey is defined as a method of obtaining large amounts of data from many people in a relatively short time and usually takes the form of questionnaires (Glasow 2005:1). There is a great need to understand the definition of a questionnaire before taking any further steps of quantitative research data collection. Thomas (2013:207) defined a questionnaire as a written form of questioning with a list of prepared questions/statements. This research survey used a questionnaire. To maintain the accuracy of the study findings and attributes, the self-administered questionnaires were delivered to the respondents together with consent letters requesting respondents to fill in the questions. The questionnaire was developed based on the research objectives of the current study.

Also, used in formulating the questionnaires was some information from the literature found on green marketing in journals, books and other online sources. Table 3-3 illustrates the connectivity between the questionnaire and research objectives.

3.5.2 Qualitative phase: Semi-structured interviews

Blanche, Durrheim and Painter (2006) noted that an interview is a natural process that facilitates interaction with the participants. Semi-structured interviews give the researcher an opportunity to get to know the participants well to understand how they think and feel. The focus of the semi-structured interviews was to establish the degree of awareness as well as patronage of green products by South African consumers. The semi-structured interviews were also used to elicit information on retail managers' views on the appropriate marketing strategies for green products in South Africa. The interviews provided a platform for the retail managers to show how they perceived the current debate on the use of environmental friendly product such as green products. Seliger and Shohamy (1989) believed that by allowing for the maximum freedom of expression of the participant, ample and often unexpected information emerges". De Vos *et al.* (2005) suggested that to minimise the amount of irrelevant information that interviews generate, several specific and defined questions, in the form of a semi-structured interview schedule, be prepared before the interview process (see Addendum 4). The interviews lasted between 25 – 35 minutes.

Table 3-3: Study design

	Research aim and objectives	Research instruments	Sample population	Focus of questioning
Aim	The primary aim of this study is to investigate the **perceptions of green marketing** of consumers and retail managers in the selected Pick n Pay stores in the Durban area.	* Interview *Questionnaires	*10 managers from two Pick and Pay outlet *200 customers from two Pick and Pay outlet	* What's your perception on green products? *Green products are healthy products? *Green products are normally of a high quality?
Objective 1	To determine the **level of awareness of green products**	* Interview	*10 managers from two Pick	

	Research aim and objectives	Research instruments	Sample population	Focus of questioning
	among consumers and retail managers of selected Pick n Pay retailers	*Questionnaires	and Pay outlets *200 customers from two Pick and Pay outlets	I am aware of the benefits of using green products?
Objective 2	To determine the **perceptions of the quality** among consumers and retail managers of selected Pick n Pay retailers affecting adoption of green products.	* Interview *Questionnaires	*10 managers from two Pick and Pay outlets *200 customers from two Pick and Pay outlet	Green products are of a better quality compared to products in the same category that are not considered green.
Objective 3	To determine the **perceptions of the price** among consumers and retail managers of selected Pick n Pay retailers affecting adoption of green products.	* Interview *Questionnaires	*10 managers from two Pick and Pay outlets *200 customers from two Pick and Pay outlets	Green products are priced in a way that makes them un affordable to low income earners
Objective 4	To determine the **perceptions of the lack of information** on green marketing/ products among consumers and retail managers of selected Pick n Pay retail stores in Durban affecting adoption of green products.	* Interview *Questionnaires	*10 managers from two Pick and Pay outlets *200 customers from two Pick and Pay outlets	The products will penetrate the market more if information is provided in indigenous languages.

	Research aim and objectives	Research instruments	Sample population	Focus of questioning
Objective 5	To determine **causative features and reasons undermining the adoption** of green products	* Interview *Questionnaires	*10 managers from two Pick and Pay outlets *250 customers from two Pick and Pay outlets	Using green products will provide a better future for generations to come.

3.5.3 Pilot testing

A pilot study involves a process of testing the measuring instrument on a small number of subjects who have similar characteristics to those subjects that are used in the main study (Christensen *et al.* 2001:234). O'Leary (2013:206) also states that pilot testing is essential as it provides the researcher with an insight into respondents who have a similar background with the actual sample. A pilot test of this particular study was conducted among ten Pick n Pay customers (not included in the final sample), which guided the researcher to modify or change instruments or contents of instrument to enhance validity of the research process. This was undertaken at the entrance of the Pick n Pay retail store of Berea. This pilot testing was done to identify the potential shortfalls of the questionnaire.

This section summarises the findings of the pilot work:

The pilot study for the survey used 25 open-ended questions. The pilot work was conducted on ten respondents (who were not part of the final study) and the purpose was to validate the instrument. The pilot study identified the following areas of improvement:

- All respondents found that the combination of open-ended and close-ended questions were ambiguous. Hence it was recommended that the questionnaire be re-designed or re-structured using only close-ended structured questions for ease of reading and clear understanding.

In light of the aforementioned feedback the questionnaire was modified to use only close-ended questions in order to achieve a robust analysis of the current scope and awareness of green products among South African consumers.

3.6 Data collection

Data collection involves decision-making and action being taken regarding information needed during the process (Sarantakos 2005:126). Churchill and Iacobucci (2005:167) suggest that data collection is a vital part of a problem-solving process. In this study, data was collected through face-to-face interviews and questionnaires. The questionnaires were distributed by the researcher to each respondent at the entrance/exit of each selected Pick n Pay store. These questionnaires were retrieved by the researcher after the participants of the study had completed them. Creswell (2003:32) stressed that the face-to-face questionnaire administration as well as face-to-face interview enhances the response rate. More so, Shu *et al*. (2004) argue that an above 60 per cent response rate is suitable for a study. Hence, in line with this assertion, a response rate of 80% was deemed appropriate for this study.

3.6.1 Respondent recruitment: Quantitative phase of the study

In attending the issue of respondents' recruitment procedures, an email was sent as well as a hard copy of a consent letter to the selected stores with a summary of the study to request a permission to conduct the practical data-gathering with their valued customers. Therefore, the following procedures were followed:

- The researcher went to each of the selected stores with the gatekeeper's letters signed by the store managers in both the selected stores which allows the researcher to proceed with the research. The researcher went on with the data collection by distributing the self-administered questionnaires to the selected consumers found in the store at that time, and these consumers were persuaded by the researcher to fill in the questions in the questionnaires and where they could not understand the researcher was there at all times to help by explaining to the participants and in return the participants were offered one green item from the Pick n Pay store which had been purchased by the researcher to further send the

message of what green products are and also to get the participants to buy in to the idea of filling in the questionnaires.

- The researcher waited for the participants to finish filling in the questions and then collected the questionnaires after they had been completed to ensure that the target of 200 completed questionnaires was reached.

3.6.2 Participant recruitment: Qualitative phase of the study

In attending the issue of participant recruitment procedures, an email was sent as well as a hard copy of a consent letter to the selected stores with a summary of the study to request a permission to conduct the practical data-gathering with their respective manager/supervisors. The following procedures outlined below were followed:

- Interviews were scheduled at the venue and time most convenient to the respective managers/supervisors.
- The consent of the managers/supervisors was solicited before recording the interview conversation.
- At the end of the interview, the mangers were debriefed by replaying the recorded back again to confirm their acceptance to go ahead with the information recorded.

3.7 Data analysis

The data collected for analysis in this research consisted of the digital recordings of the semi-structured interviews, and questionnaire response procedures. As mentioned earlier, a mixed-method approach was used in this study. This approach assumes that data gathered will generate a better understanding of the research problem.

3.7.1 Quantitative phase

This section discussed statistical techniques used to analyse data and obtain the research results. There are two basic types of statistical analysis, namely, descriptive and inferential. Lind, Mason and Marchal (2002) describe descriptive statistics as a method of organising, summarising and presenting data in an informative way. Although such statistics makes no inference or predictions they are, however, useful in summarising results. Both univariate and bivariate descriptive statistical procedures

were used to analyse the data in this study. Salkied (2007) and Field (2009) pointed out that univariate and bivariate approaches are most appropriate for descriptive statistics. Bar graphs, pie charts, and frequency tables were used to present the data.

Regarding the inferential statistical analysis, Asadoorian and Kantarelis (2005:2) explained that inferential statistics, by contrast, uses the laws of probability to make inferences and draw statistical conclusions about the sample data. Basically, inferential statistical tests are used to examine the hypothesis in a study (Creswell 2009). According to May (2011:122), the analysis of survey data can be structured into three distinctive stages, which include describing data, drawing statistical inferences and lastly, doing modelling and multivariate analyses. The inferential statistics used were inclusive of spearman correlation and Pearson Chi-square, with $p<0.05$ set as statistically significant. All analyses were performed using Statistics Package for Social Sciences (SPSS Version 24®).

3.7.2 Qualitative phase

The semi-structured interviews were transcribed and analysed using thematic content analysis. Thematic analysis looks at identifiable themes and patterns of experiences (Aronson 1995). The individual interviews were transcribed by the researcher who is able to type up data from interviews accurately. The data was then coded according to themes that arose. Coding is described as a process of segmenting and labelling text to form broad themes (Babbie and Mouton 2006). Strategies used for the awareness of green product to customers, challenges of selling green products, problem emanating from lack of awareness of green products, and relevant of advertising platforms in marketing green products, were drawn as themes and analysed. A careful reading of literature on the environment importance of green products also underpinned the construction of key themes from the data.

3.8 Quantitative phase: Validity and reliability

Validity and reliability of a questionnaire are the major key criteria for evaluating quantitative instruments. *Consistency* is linked to the term *reliability* while *accuracy* is associated with the term *validity* (Fredrick Lori-Ann 2012:301). Reliability refers to consistency or stability of the score we get from test and assessment procedures.

Validity refers to the judgement of the appropriateness of interpretations and actions we make based on scores we get from a test. In terms of the validity and reliability of the quantitative phase, content validity ensure that the questionnaire focused on concepts and constructs that emerged from the review of literature on green products. The internal consistency of the questionnaire was assessed through Cronbach's alpha. George and Mallery (2011), as a rule of thumb, noted that the Cronbach's alpha reliability coefficient normally ranges from 0 to1 and may be used to describe the reliability of items extracted from the survey. They pointed out that the closer Cronbach's alpha is to 1.0, the greater the internal consistency of the items measured on the survey. The researcher conducted a pilot test; adhered to rules of the thumb while designing the questionnaire to enhancing validity and reliability of the current study. Examples of rules of thumbs include the use of simple English phrases and questionnaire formats. More so, the questions were directly linked to the research aim and objectives (Creswell 1994:34). Venkitachalam (2015:23) affirms that to ensure validity of a questionnaire, the following steps should be adhered to:

* Readability
* Feasibility
* Layout and style
* Clarity of wording.

Hence, the researcher adhered to these measures while designing the questionnaire.

3.9 Qualitative phase: Trustworthiness

While reliability and validity were used to judge the quality of the quantitative phase, Mertens (1998:287) and De Vos *et al.* (2005:346) claim that qualitative data could be assessed based on its dependability, credibility, and trustworthiness. Cohen *et al.* (2001:119) contend that in qualitative data, validity and reliability might be addressed through the honesty, depth, richness and scope of the data achieved. Trustworthiness of the interview data were ensured using a recorder during the cause of interview.

3.10 Confidentiality and anonymity

Neuman (1997: 452) explains confidentiality as the non-mentioning or non-disclosure of respondents' identities; whereas anonymity occurs when the respondents remain

anonymous throughout the academic research study. The respondents (survey) as well as the participants (interview) will remain anonymous throughout the study. The information supplied will be kept confidential as the names of respondents will not be published. The findings were set out to be statistical in nature; hence no personal details of any individual were revealed when compiling the dissertation report. In both the qualitative and quantitative phases, each participant signed a consent form and was informed that participation in this study was voluntary and that the anonymity and confidentiality of information would be maintained (Addendum 1). The consent form described all the features of the study in terms of its purpose, procedures, and benefits, as well as the participants' rights to engage voluntarily and withdraw at any time. Furthermore, interviewees were assured that the transcriptions were undertaken by the researcher only and made available to the supervisor when requested. Areas that were unclear to the participants were also clarified. Participants in the semi-structured interviews also consented to the interview being recorded electronically by the researcher.

3.11 Ethical considerations

Scheyvens (2014:163) states that the ethics of science concerns what is wrong and what is right. Hence, researcher's conduct must conform to the generally accepted norms and values. According to Churchill (2012:21), ethics refers to the suitability of the researcher's behaviour in relation to the rights of those who become the subjects. Walliman (2011:239) highlights that ethics is commonly associated with morality and relates to issues of right and wrong among groups, society or communities. Anderson (2013:130) highlights the three basic ethical principles as the basis for research involving human subjects; these include respect for justice, people and beneficence. Adams and Lawrence (2014:72) emphasise that these ethical codes should maintain a participant's well-being and that studies should be centred on trust between the two parties. The study complied with ethical considerations by adhering strictly to the ethical standards stipulated by the Durban University of Technology. Approval was obtained from the Durban University of Technology's Ethics Committee.

3.12 Conclusion

This chapter outlined the research methodology employed in the research study. As it was highlighted in the introduction of the chapter, the foregoing Chapter discussed the research design, the target population, sample methods together with sample size, measurement instruments, respondent recruitment, data collection and data analysis. More so, aspects such as pilot testing, confidentiality measurement, reliability and validity were discussed.

The subsequent chapter will provide a rigorous discussion of the study's results and consider future directions for this research. The data from quantitative phase will be illustrated with the aid of graphs, descriptive statistics and appropriate inferential statistics, whereas the interview data obtained from the qualitative phase will be transcribed verbatim and used as such during discussion.

CHAPTER 4 – Results and discussion

4.1 Introduction

In this chapter the results are presented and discussed which were obtained from the two data-collection instruments; namely, the semi-structured interviews and the questionnaire. The questionnaire was the primary tool used to collect data and was distributed to consumers at selected Pick n Pay outlets within Durban, South Africa. The semi-structure interviews were held with the retail managers of the selected Pick n Pay outlets. The data collected from the responses was analysed with SPSS (version 24®) in relation to the five objectives outlined in Chapter 1, that is:

- to determine the perceptions of the quality among consumers and retail managers of selected Pick n Pay retailers,
- to determine the perceptions of the quality among consumers and retail managers of selected Pick n Pay retailers affecting adoption of green products,
- to determine the perception of the price among consumers and retail managers of selected Pick n Pay retailers affecting green products,
- to determine the perceptions of the lack of information on green marketing/products among consumers and retail managers of selected Pick n Pay retailers stores in Durban affecting adoption of green products, and
- to determine causative features and reasons undermining the adoption of green products.

Excluding the semi-structured interviews, all the data in the sections below was statistically analysed to determine the perceptions of green marketing of consumers and retail managers in the selected: Pick n Pay stores. The research instrument consisted of 30 items, with a level of measurement at a nominal and an ordinal level. The questionnaire was divided into six sections which measured various themes as illustrated below:

1	Biographical data
2	Awareness of green products
3	Perception of the quality of green products
4	Perceptions of the price of green products among consumers and retail managers
5	Lack of information on green products
6	Uncertainty of place of green products in society

The results are presented as descriptive and inferential statistics. The descriptive statistics are presented in the form of graphs, cross-tabulations and other forms. Inferential techniques include the use of correlations and chi square test values; which are interpreted using the p-values. Towards the latter part of the chapter, the data from the semi-structure interviews with retail managers are presented.

4.2 Reliability: Research instrument (Quantitative)

Before discussing the findings of this study, this section deliberately focuses on a few issues of reliability. Reliability is computed by taking several measurements on the same subjects. A Cronbach's alpha reliability coefficient of 0.70 or higher is considered as "acceptable". Table 4-1 below reflects the Cronbach's alpha score for all the items that constituted the questionnaire. The reliability scores for all sections exceed the recommended Cronbach's alpha value. This indicates a degree of acceptable consistent scoring for these sections of the research.

Table 4-1: Survey scales and predictor variables in quantitative analysis

Survey scales	Predictor variables	Number of Items	Cronbach's Alpha score
RO1	Awareness of green products	5 of 5	0.890
RO2	Perception of the quality of green products	5 of 5	0.857
RO3	Perceptions of the price of green products among consumers and retail managers	5 of 5	0.758
RO4	Lack of information on green products	5 of 5	0.787

RO5	Uncertainty of place of green products in society	5 of 5	0.846

4.3 Demographic information of the respondents

This section summarises the biographical characteristics of the respondents. In total, 250 questionnaires were despatched and 200 were returned, which constituted a response rate of 80%. It is worth mentioning that questionnaires which were not sufficiently completed were disregarded. More so, Shu *et al.* (2004) argue that an above 60 per cent response rate is suitable for a study. Hence, it can therefore be inferred that the response rate of 80% is sufficient for this study.

Respondents are described in terms of the following demographic characteristics: race (Figure 4-1), age and gender (Table 4-2).

As shown in Figure 4-1, respondents were mainly Black Africans (49.5%), with whites constituting (22.1%); Indians (19.1%); and Coloured (9.5%).

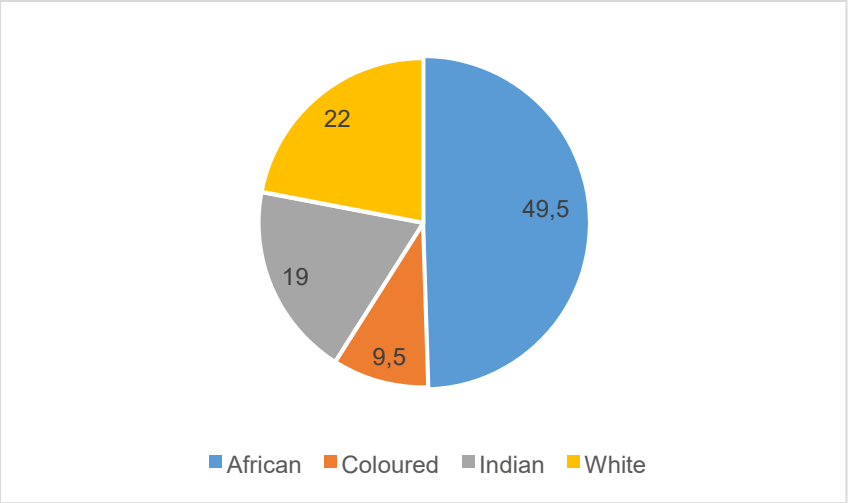

Figure 4-1: The racial composition of the respondents.

In terms of age group and as highlighted in Table 4-2, 40.0% of respondents were between 25-26 years old; 29.5% were between 18-25 years old; 19% were between 36-45 years old; 8.5% were between 46-55 years old; and 3.0% were above 56 years old. Overall, the ratio of males to females is approximately 1:1 (46.5%: 53.5%). Within the age category of 36 to 45 years, 42.1% were male. Within the category of males

(only), 17.2% were between the ages of 36 to 45 years. This category of males between the ages of 36 to 45 years formed 8.0% of the total sample

Table 4-2: The overall gender distribution by age.

			Gender		Total
			Male	Female	
Age Group	18 – 25	Count	26	33	59
		% within age group	44.1%	55.9%	100.0%
		% within gender	28.0%	30.8%	29.5%
		% of Total	13.0%	16.5%	29.5%
	26 – 35	Count	39	41	80
		% within age group	48.8%	51.3%	100.0%
		% within gender	41.9%	38.3%	40.0%
		% of Total	19.5%	20.5%	40.0%
	36 – 45	Count	16	22	38
		% within age group	42.1%	57.9%	100.0%
		% within gender	17.2%	20.6%	19.0%
		% of Total	8.0%	11.0%	19.0%
	46 – 55	Count	9	8	17
		% within age group	52.9%	47.1%	100.0%
		% within gender	9.7%	7.5%	8.5%
		% of Total	4.5%	4.0%	8.5%
	56+	Count	3	3	6
		% within age group	50.0%	50.0%	100.0%
		% within gender	3.2%	2.8%	3.0%
		% of Total	1.5%	1.5%	3.0%
Total		Count	93	107	200
		% within age group	46.5%	53.5%	100.0%
		% within gender	100.0%	100.0%	100.0%
		% of Total	46.5%	53.5%	100.0%

As illustrated in Figure 4-2 and Table 4-3, it is worth noting that the majority of the respondents (38.0%) had a post-school qualification (Figure 4-2) and two-thirds (68.0%) reported that they lived in urban areas (Table 4-2). This is significant as it indicates that a fair proportion of the respondents have a higher qualification. This therefore suggests that the responses gathered would have been from an informed (learned) source.

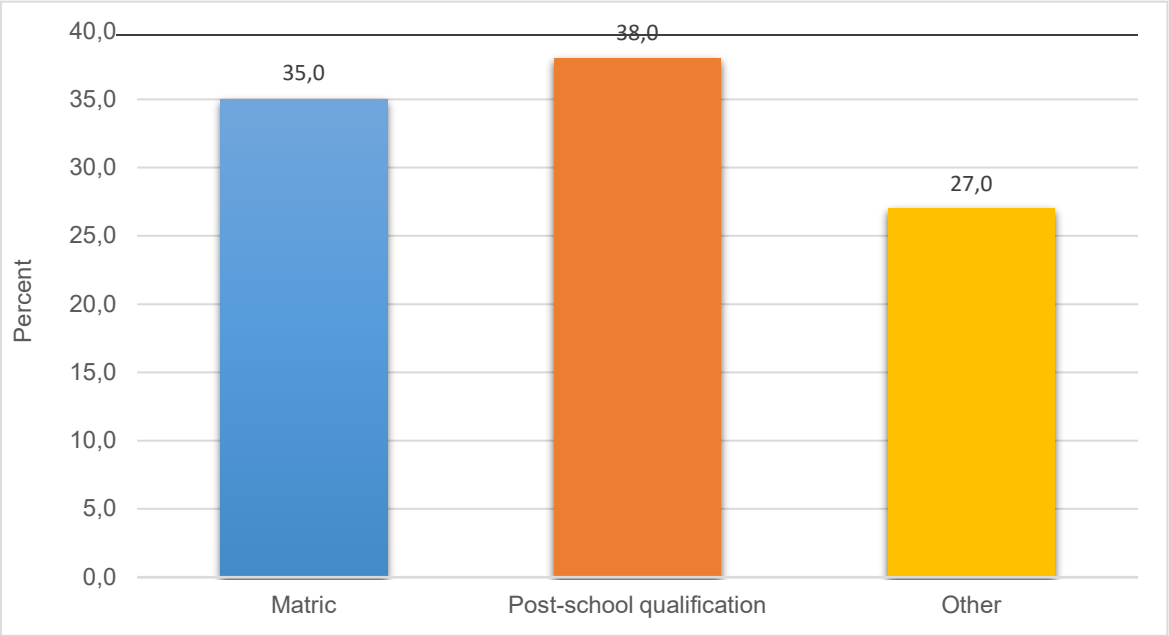

Figure 4-2: Education levels of the respondents.

Table 4-3: The location of the residents is shown below.

	Frequency	Percent
Rural	22	11.0
Urban	136	68.0
Sub-urban	42	21.0
Total	200	100.0

4.4 Respondents scoring pattern

The section presents the scoring patterns of the respondents per variable per section. The levels of disagreement (negative statements) were collapsed to show a single category of “Disagree”. A similar procedure was followed for the levels of agreement (positive statements). The results are first presented using summarised percentages for the variables that constitute each section. Results are then further analysed according to the importance of the statements. To determine whether the scoring patterns per statement were significantly different per option, a chi-square test was done. The null hypothesis claims that similar numbers of respondents scored across each option for each statement (one statement at a time). The alternate states that there is a significant difference between the levels of agreement and disagreement. The results are shown in the tables below. The highlighted significant values (p-values)

are less than 0.05 (the level of significance), it implies that the distributions were not similar. That is, the differences between the way respondents scored (agree, neither agree not disagree, disagree) were significant.

4.4.1 Awareness of green product (RO1)

As indicated by the level of significance, Chi-square analyses in Table 4-4 revealed that the respondents' scoring patterns exhibited a statistically significant relationship ($p<0.05$) in the results with regards to the awareness of green products. To be specific, and as shown in Figure 4-3, 73.9% of the 200 respondents agreed on the awareness of a green product, while a large proportion of them (75.5%) were aware where it could be purchased. Over two-thirds of them (69.0%) were aware of the benefits of using green products.

Regarding the statement in Table 4-4 (RO1.4 and RO1.5). A total of 57.0% of the respondents agreed that manufacturers of green products make consumers aware of the green features of their products, and 52.5% of them equally agree that retailers stocking green products make consumers aware of the green features of the products they stock. It can be inferred that respondents held similar views on awareness of green product with the average level of agreement given as 65.57% (Figure 4-3). This may likely be attributed to the level of education (38.0%) of the respondents, which suggests that the responses gathered would have been from an informed (learned) source. These findings support the view of Mohanasundaram (2012) that a green product consumer is more educated and wealthier than the average consumer.

In addition, the following patterns were observed:

- All of the statements show (significantly) higher levels of agreement whilst other levels of agreement are lower (but still g breater than levels of disagreement)
- Respondents indicate that manufacturers and retailers do not do enough to make consumers aware of green products
- The significance of the differences is tested and shown in the table

Table 4-4: Respondents scoring patterns on the awareness of green products.

		Disagree		Neither agree not disagree		Agree		Chi Square
		Count	Row N %	Count	Row N %	Count	Row N %	p-value
I am aware of what a green product is.	RO1.1	39	19.60%	13	6.50%	147	73.90%	0
I am aware of where I can buy green products.	RO1.2	34	17.00%	15	7.50%	151	75.50%	0
I am aware of the benefits of using green products.	RO1.3	34	17.00%	28	14.00%	138	69.00%	0
Manufacturers of green products make consumers aware of the green features of their products.	RO1.4	44	22.00%	42	21.00%	114	57.00%	0
Retailers stocking green products make consumers aware of the green features of the products they stock.	RO1.5	50	25.00%	45	22.50%	105	52.50%	0

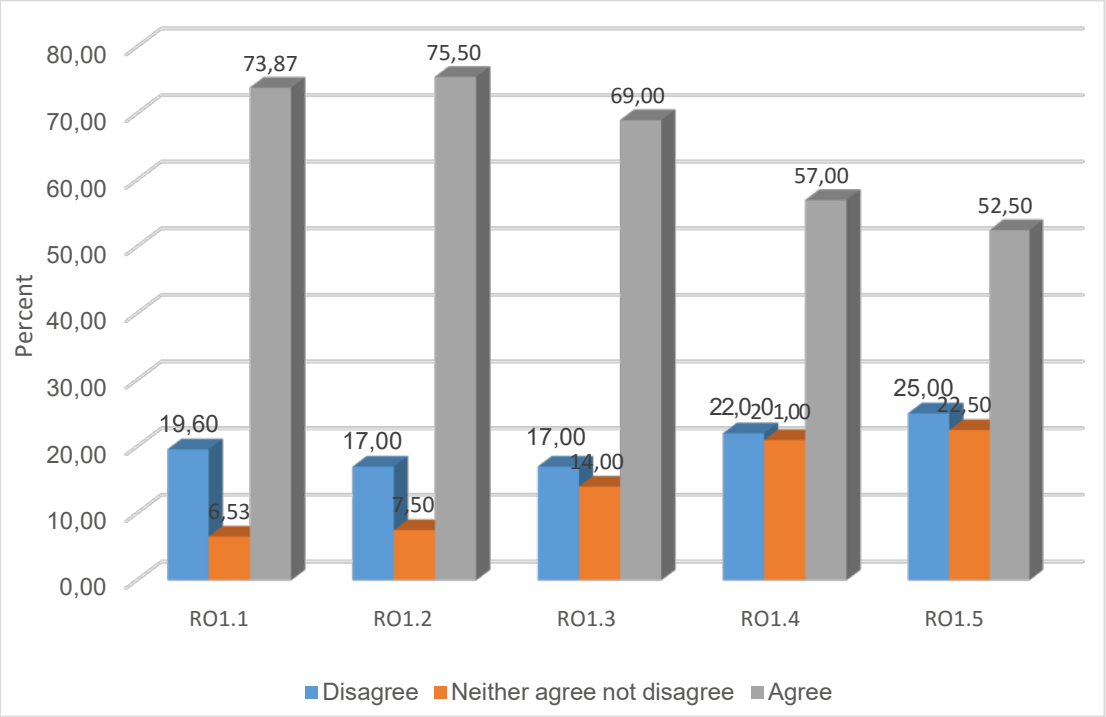

Figure 4-3: Respondents' average level of agreement on awareness of green products

4.4.2 Perception of the quality of green products (RO2)

With regards to the perception of the quality of green products by the respondents, results were statistically different. It can be gathered from Table 4-5, that there were

differences in opinion regarding the perceived quality of green products. Despite the differences, respondents' opinions were positive with the average level of agreement indicated as 71.47% (Figure 4-4).

Table 4-5: Respondents' scoring patterns on the perception of the quality of green products

		Disagree		Neither agree not disagree		Agree		Chi Square
		Count	Row N %	Count	Row N %	Count	Row N %	p-value
Green products are healthy products.	RO2.1	26	13.00%	33	16.50%	141	70.50%	0
The packaging of green products is recyclable.	RO2.2	14	7.00%	38	19.00%	148	74.00%	0
Green products are normally easy to use/make/prepare.	RO2.3	16	8.00%	38	19.10%	145	72.90%	0
Green products are normally of a high quality.	RO2.4	19	9.50%	38	19.00%	143	71.50%	0
Green products are of a better quality compared to products in the same category that are not considered green.	RO2.5	22	11.00%	41	20.50%	137	68.50%	0

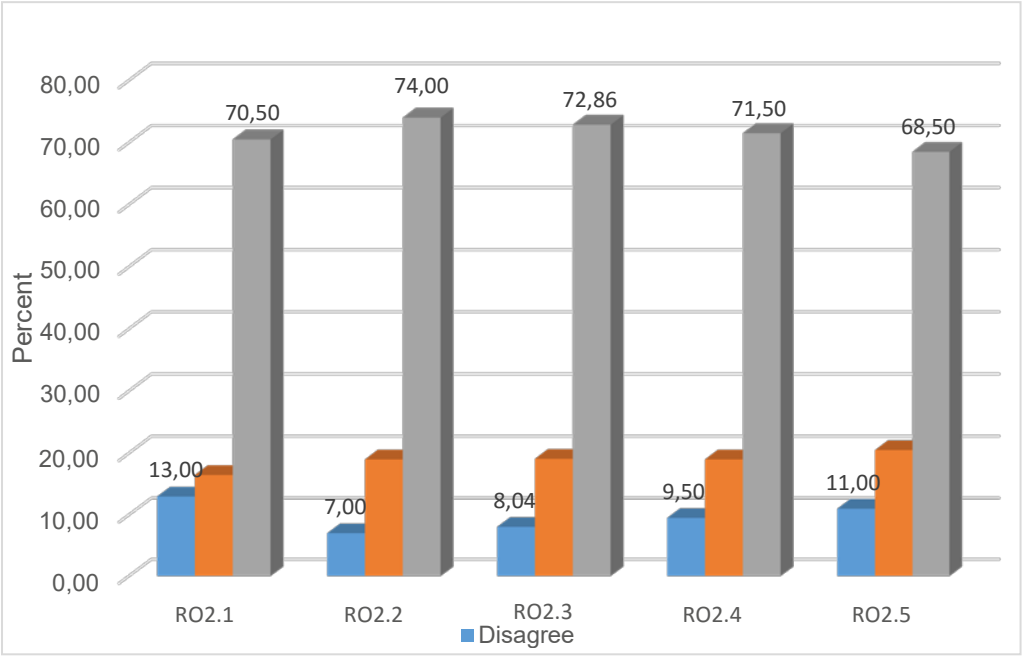

Figure 4-4: Respondents' average level of agreement on perception of the quality of green products.

4.4.3 Determining the perceptions of the price of green products among consumers and retail managers of selected Pick n Pay stores (RO3)

With reference to the research objective 3, determining the perceptions of the price of green products among consumers and retail managers of selected Pick n Pay stores, Chi-squared analyses yielded a statistically significant relationship ($p < 0.05$) in all the statements in Table 4-6. As illustrated in Figure 4-5, the majority of the respondents were in agreement that the price of the green products did not impact on their perceptions of the green product with the average level of agreement indicated as 61.74% (Figure 4-5). This means that the price of green products did not change the perceptions of green products among the consumers and retail managers. Specifically, 61.0% of the respondents agreed that the prices of green product were commensurate with the quality promised. Similarly, nearly half of the respondents (54.3%) agreed that when compared with other similar products, the price of green products was fair. These findings to some extent concur with the findings of Lee (2009) and Rahbar and Wahid (2011) that consumers are willing to pay more to 'go green'.

Table 4-6: Respondents' scoring patterns on the price of green products

		Disagree		Neither agree not disagree		Agree		Chi Square
		Count	Row N %	Count	Row N %	Count	Row N %	p-value
The price of the product is commensurate with the quality promised.	RO3.1	26	13.00 %	52	26.00 %	122	61.00 %	0
When compared with other similar products, the prices of green products are fair	RO3.2	29	14.50 %	62	31.00 %	109	54.50 %	0
Green products are priced in a way that makes them unaffordable to low-income earners.	RO3.3	25	12.50 %	63	31.50 %	112	56.00 %	0
The price difference between green products and non-green products indicates value for money	RO3.4	22	11.10 %	47	23.60 %	130	65.30 %	0
I feel I am contributing to the development of an eco-friendly environment when I buy green products	RO3.5	17	8.50%	39	19.60 %	143	71.90 %	0

Interestingly, only 65.3 % of them agreed with the statement that the price difference between green products and non-green products indicates value for money. In contrast, 56.0% of the respondents are of the view that green products are priced in a way that makes them unaffordable to low-income earners. This is critical as most of the respondents are black Africans (49.2%), which suggests that they may not be able afford the costs of green product. This is sensible, considering the recent report by Baloyi and Issac (2015), that South Africans are the most highly marginalised country in the world. This is commensurate with the findings of the national statistics in 2014 which indicates that on average, the top 10 % of wage earners take home 90 times more in wages than bottom 10%, whereas the top 1% earn 393 times more than the bottom 10%. Notwithstanding this, more than two-thirds (71.9%) of the respondents agreed that the use of green product makes them feel like contributing to the development of an eco-friendly environment when they buy green products.

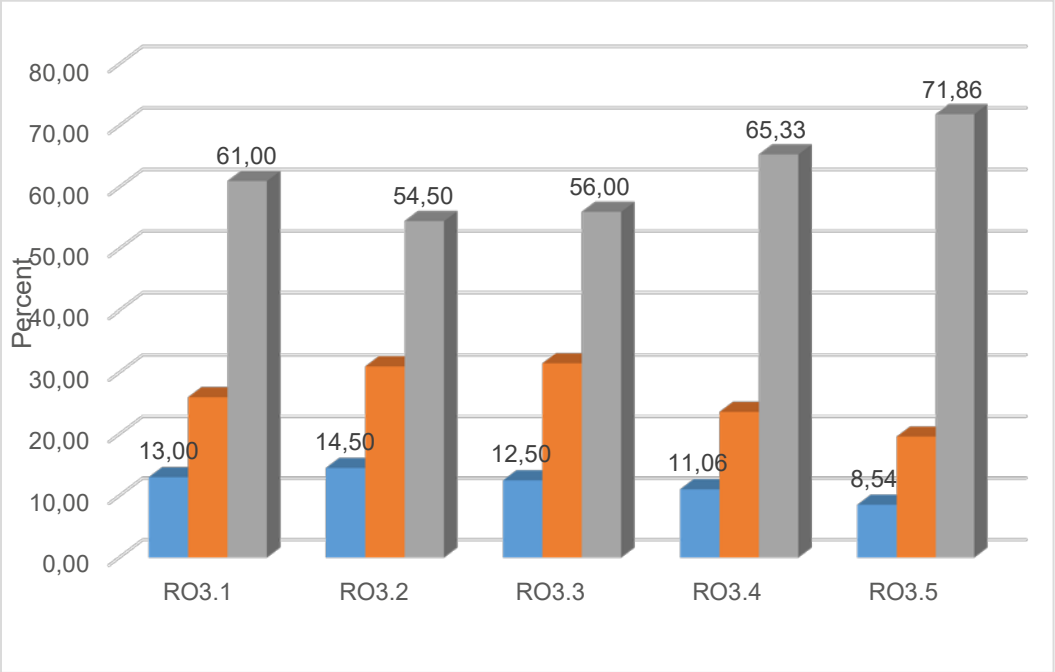

Figure 4-5: Respondents' average level of agreement on perception of the price of green products.

4.4.4 Information on green products (RO4)

On the issue of lack of information regarding green products, Table 4-7 showed that the majority (52.5%) of respondents agreed there was sufficient information about green features in green products. Similarly, 59.0% of them agreed that consumers

purchase green products because they have adequate knowledge about it. Overall, the average level of agreement was 60.40% (Figure 4-6). A likely reason for the high awareness of green products may be related to the level of advertisement of green products through the media. This is supported by a third (44.5%) of the respondents who agreed that the media provides sufficient information about green products. It is worth noting that 68.0% of respondents indicated that the information provided on the green product packaging was easy to understand. In addition, 77.5% of respondents were of the view that green products will penetrate the market more if information is provided in indigenous languages. This is critical considering that most South African's are second-language English speakers and will be more informed when advertisement is conveyed in a language they clearly understood.

Table 4-7: Respondents' scoring patterns on lack of information on green products.

		Disagree		Neither agree not disagree		Agree		Chi Square
		Count	Row N %	Count	Row N %	Count	Row N %	p-value
There is sufficient information about green features in green products.	RO4.1	47	23.50%	48	24.00%	105	52.50%	0
The media provides sufficient information about green products.	RO4.2	55	27.50%	56	28.00%	89	44.50%	0.004
Consumers purchase green products because they have adequate knowledge about it.	RO4.3	28	14.00%	54	27.00%	118	59.00%	0
The information provided on the green product packaging is easy to understand and apply.	RO4.4	21	10.50%	42	21.00%	137	68.50%	0
The product will penetrate the market more if information is provided in indigenous languages	RO4.5	14	7.00%	31	15.50%	155	77.50%	0

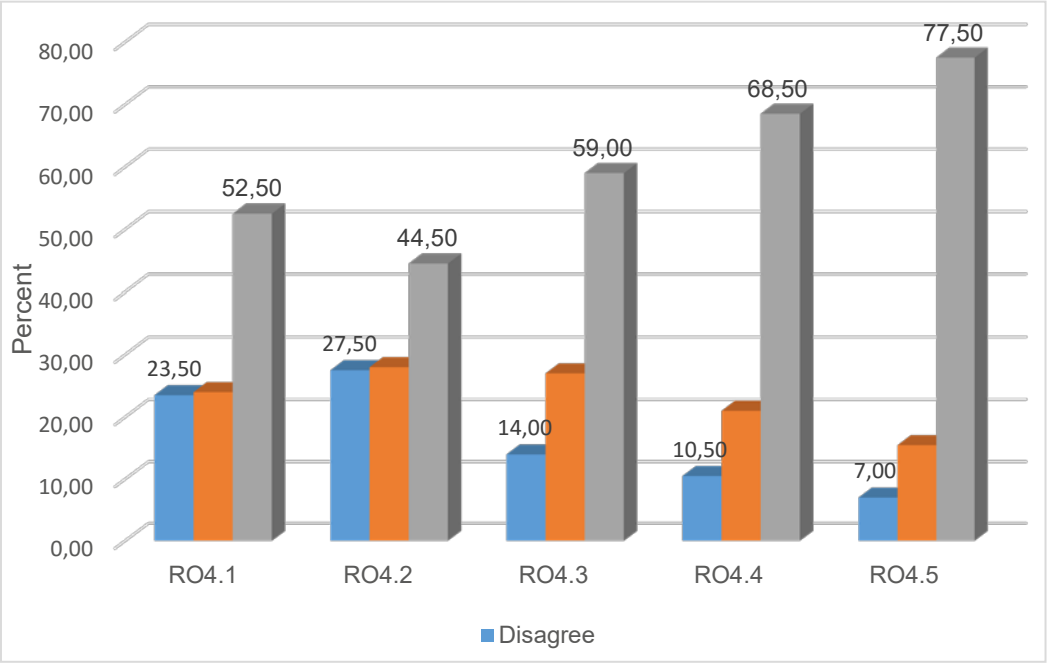

Figure 4-6: Respondents' average level of agreement on lack of information on green products

4.4.5 Certainty of place of green products in society (RO5)

In terms of the place of green products in South African society, and as demonstrated in Table 4-8, Chi-squared analyses showed a statistically significant relationship ($p < 0.05$) in all the statements in Table 4-8. Interestingly, a majority (73.5%) agreed that consumers purchased green products as they were certain of their benefits. Similarly, 75.0% of respondents agreed that they were certain the purchase green product was of good quality. Overall, there was general agreement (Figure 4-7) to the use of green product among South Africans soon. Equally and deserving mention is that the majority (76.5%) of respondents acknowledged that green products will make a difference to the environment. As such, and with regards to the statement on Table 4-8 (RO5.4), 76.4% of respondents are certain that the majority of South Africa's population will adopt the usage of green products in the future. It can be gathered from Table 4-8 (RO5.5) that using green products will provide a better future for generations to come.

Table 4-8: Respondents scoring patterns on the place of green products in society

		Disagree		Neither agree not disagree		Agree		Chi Square
		Count	Row N %	Count	Row N %	Count	Row N %	p-value
Consumers purchase green products as they are certain of the benefits of green products.	RO5.1	19	9.50 %	34	17.00 %	147	73.50 %	0
I am certain that when I buy a green product it will be of a good quality.	RO5.2	18	9.00 %	32	16.00 %	150	75.00 %	0
I am sure that green products will make a difference to the environment.	RO5.3	14	7.00 %	33	16.50 %	153	76.50 %	0
I am certain that the majority of the population will adopt the usage of green products in the future	RO5.4	17	8.50 %	30	15.10 %	152	76.40 %	0
Using green products will provide a better future for generations to come.	RO5.5	10	5.00 %	25	12.50 %	165	82.50 %	0

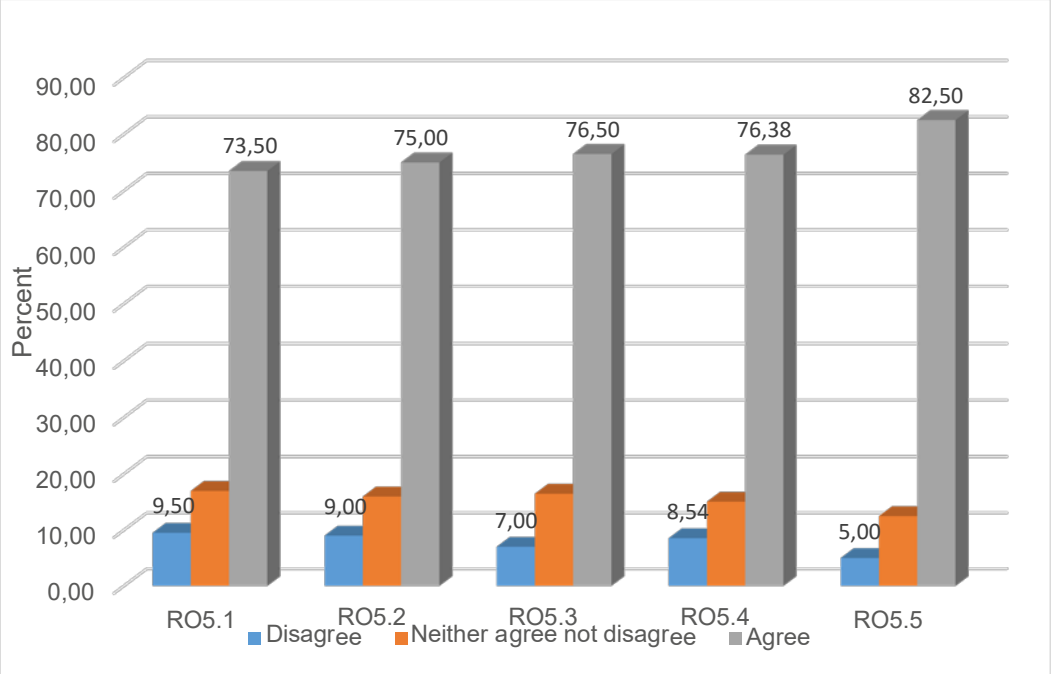

Figure 4-7: Respondents' average level of agreement on place of green products in society.

4.5 Pearson Chi-square tests

A second Chi-square test was performed to determine whether there was a statistically significant relationship between the variables (rows vs columns). As indicated by the levels of significance, Chi-squared analyses in Addendum 7 (Table 7) revealed that the respondents' scoring patterns by age groups exhibited no statistically significant relationship between the variables ($p>0.05$) This implies that the age group of respondents did not impact on the manner of scoring for the variables overall.

On the other hand, and in terms of the respondents' ratings of awareness of green product questions highlighted in Table 7 (Addendum 7), results were statistically different by location of respondents. It can therefore be inferred that the location of the respondent did play a significant role in terms of how respondents viewed their awareness of green products. Moreover, respondents held different opinions on where they could buy green product, the benefits of using green products, manufacturers of green products make consumers aware of the green features of their product, and retailers stocking green products make consumers aware of the green features of the products they stock. The cross-tabulation results are summarized below.

4.5.1 *Relationship between respondent education level, ethnic group and green product purchase awareness*

A point worth mentioning, and as shown in Tables 4-9 and 4-10 was that 21.4% of respondents who disagreed on the question "*I am aware of what a green product is*," were matric holders; 27.3% of them live in rural areas, and are mostly Africans (13.7%), Coloureds (21.1%), and Indians (23.7%).

Table 4-9: Chi-square test results – Cross-tabulation educational Level and I am aware of where I can buy green products

			Educational Level			Total
			Matric	Post-school qualification	Other	
I am aware of where I can buy green products.	Strongly disagree	Count	5	3	2	10
		% within Educational Level	7.10%	3.90%	3.70%	5.00%
	Disagree	Count	15	4	5	24
		% within Educational Level	21.40%	5.30%	9.30%	12.00%
	Neither agree not disagree	Count	6	4	5	15
		% within Educational Level	8.60%	5.30%	9.30%	7.50%
	Agree	Count	34	50	27	111
		% within Educational Level	48.60%	65.80%	50.00%	55.50%
	Strongly agree	Count	10	15	15	40
		% within Educational Level	14.30%	19.70%	27.80%	20.00%
Total		Count	70	76	54	200
		% within Educational Level	100.00%	100.00%	100.00%	100.00%

Table 4-10: Chi-square test results – Cross-tabulation ethnic group and I am aware of what a green product is.

			Ethnic Group				Total
			African	Coloured	Indian	White	
I am aware of what a green product is.	Strongly disagree	Count	8	3	0	1	12
		% within Ethnic Group	8.20%	15.80%	0.00%	2.30%	6.10%
	Disagree	Count	13	4	9	1	27
		% within Ethnic Group	13.30%	21.10%	23.70%	2.30%	13.60%
	Neither agree not disagree	Count	9	1	2	0	12
		% within Ethnic Group	9.20%	5.30%	5.30%	0.00%	6.10%
	Agree	Count	44	8	22	30	104
		% within Ethnic Group	44.90%	42.10%	57.90%	69.80%	52.50%
	Strongly agree	Count	24	3	5	11	43
		% within Ethnic Group	24.50%	15.80%	13.20%	25.60%	21.70%
Total		Count	98	19	38	43	198
		% within Ethnic Group	100.00%	100.00%	100.00%	100.00%	100.00%

4.5.2 Relationship between respondents' education level, location and green product purchase awareness

Similarly, across education and location, respondents held different opinions on where they could purchase green products. It is worth noting that 21.4% of those who disagreed about where to purchase green products were matric holders (Table 4-11), whereas 27.3% of them live in rural areas (Table 4-12).

Table 4-11: Chi-square test results – Cross-tabulation educational level and where I can buy green products.

			Educational Level			Total
			Matric	Post-school qualification	Other	
I am aware of where I can buy green products.	Strongly disagree	Count	5	3	2	10
		% within Educational Level	7.10%	3.90%	3.70%	5.00%
	Disagree	Count	15	4	5	24
		% within Educational Level	21.40%	5.30%	9.30%	12.00%
	Neither agree not disagree	Count	6	4	5	15
		% within Educational Level	8.60%	5.30%	9.30%	7.50%
	Agree	Count	34	50	27	111
		% within Educational Level	48.60%	65.80%	50.00%	55.50%
	Strongly agree	Count	10	15	15	40
		% within Educational Level	14.30%	19.70%	27.80%	20.00%
Total		Count	70	76	54	200
		% within Educational Level	100.00%	100.00%	100.00%	100.00%

Table 4-12: Chi-square test results – Cross-tabulation location and where I can buy green products.

			Location			Total
			Rural	Urban	Sub-urban	
I am aware of where I can buy green products.	Strongly disagree	Count	4	4	2	10
		% within Location	18.20%	2.90%	4.80%	5.00%
	Disagree	Count	6	13	5	24
		% within Location	27.30%	9.60%	11.90%	12.00%
	Neither agree not disagree	Count	2	8	5	15
		% within Location	9.10%	5.90%	11.90%	7.50%
	Agree	Count	8	79	24	111
		% within Location	36.40%	58.10%	57.10%	55.50%
	Strongly agree	Count	2	32	6	40
		% within Location	9.10%	23.50%	14.30%	20.00%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

4.5.3 Relationship between respondents' gender, education level, location and benefits of using green product

On the other hand, and as shown in Table 7 (Addendum 7), across gender, education level and location, respondents have different opinions on the benefits of using green products. It is worth noting that 13.5% of respondents who disagreed on the benefits of using green products, 11.8% were male and 15.0% were females (Table 4-13). More so, 14.3% of them were matric holders (Table 4-14) and 27.3% live in rural areas (Table 4-15).

Table 4-13: Chi-square test results – Cross-tabulation Gender and Benefits of using green product.

			Gender		Total
			Male	Female	
I am aware of the benefits of using green products.	Strongly disagree	Count	3	4	7
		% within Gender	3.20%	3.70%	3.50%
	Disagree	Count	11	16	27
		% within Gender	11.80%	15.00%	13.50%
	Neither agree not disagree	Count	22	6	28
		% within Gender	23.70%	5.60%	14.00%
	Agree	Count	42	52	94
		% within Gender	45.20%	48.60%	47.00%
	Strongly agree	Count	15	29	44
		% within Gender	16.10%	27.10%	22.00%
Total		Count	93	107	200
		% within Gender	100.00%	100.00%	100.00%

Table 4-14: Chi-square test results – Cross-tabulation Education and Benefits of using green product.

			Educational Level			Total
			Matric	Post-school qualification	Other	
I am aware of the benefits of using green products.	Strongly disagree	Count	5	1	1	7
		% within Educational Level	7.10%	1.30%	1.90%	3.50%
	Disagree	Count	10	12	5	27
		% within Educational Level	14.30%	15.80%	9.30%	13.50%
	Neither agree not disagree	Count	14	8	6	28
		% within Educational Level	20.00%	10.50%	11.10%	14.00%
	Agree	Count	31	35	28	94
		% within Educational Level	44.30%	46.10%	51.90%	47.00%
	Strongly agree	Count	10	20	14	44
		% within Educational Level	14.30%	26.30%	25.90%	22.00%
Total		Count	70	76	54	200
		% within Educational Level	100.00%	100.00%	100.00%	100.00%

Table 4-15: Chi-square test results–Cross-tabulation Location and Benefits of using green product.

			Location			Total
			Rural	Urban	Sub-urban	
I am aware of the benefits of using green products.	Strongly disagree	Count	3	2	2	7
		% within Location	13.60%	1.50%	4.80%	3.50%
	Disagree	Count	6	14	7	27
		% within Location	27.30%	10.30%	16.70%	13.50%
	Neither agree not disagree	Count	5	17	6	28
		% within Location	22.70%	12.50%	14.30%	14.00%
	Agree	Count	4	72	18	94
		% within Location	18.20%	52.90%	42.90%	47.00%
	Strongly agree	Count	4	31	9	44
		% within Location	18.20%	22.80%	21.40%	22.00%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

4.5.4 Relationship between respondents' location and manufacturers as well as retail intent to increase consumer awareness green product

Regarding the question "manufacturers of green products make consumers aware of the green features of their product", 31.8 % of the respondents who disagreed with the question live in rural areas, 17.6% live in urban, and 11.9% live in sub-urban areas (Table 4-16). It can also be gathered from the Table 7 (Addendum 7) that across locations, there were differences in opinion with regards to the question "retailers stocking green products make consumers aware of the green features of the products they stock". It is also worth noting that 27.3% of the respondents who disagreed on the question live in rural areas, whereas 20.6% of them live in urban and 19.0% live in sub-urban areas (Table 4-17).

Table 4-16: Chi-square test results – Cross-tabulation Location and Manufacturers of green products make consumers aware of the green features of their products.

			Location			Total
			Rural	Urban	Sub-urban	
Manufacturers of green products make consumers aware of the green features of their products.	Strongly disagree	Count	5	1	2	8
		% within Location	22.70%	0.70%	4.80%	4.00%
	Disagree	Count	7	24	5	36
		% within Location	31.80%	17.60%	11.90%	18.00%
	Neither agree not disagree	Count	4	30	8	42
		% within Location	18.20%	22.10%	19.00%	21.00%
	Agree	Count	6	59	23	88
		% within Location	27.30%	43.40%	54.80%	44.00%
	Strongly agree	Count	0	22	4	26
		% within Location	0.00%	16.20%	9.50%	13.00%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

Table 4-17: Chi-square test results – Cross-tabulation Location and Retailers stocking green products make consumers aware of the green features of the products they stock

			Location			Total
			Rural	Urban	Sub-urban	
Retailers stocking green products make consumers aware of the green features of the products they stock.	Strongly disagree	Count	2	3	3	8
		% within Location	9.10%	2.20%	7.10%	4.00%
	Disagree	Count	6	28	8	42
		% within Location	27.30%	20.60%	19.00%	21.00%
	Neither agree not disagree	Count	4	28	13	45
		% within Location	18.20%	20.60%	31.00%	22.50%
	Agree	Count	9	62	14	85
		% within Location	40.90%	45.60%	33.30%	42.50%
	Strongly agree	Count	1	15	4	20
		% within Location	4.50%	11.00%	9.50%	10.00%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

4.5.5 Relationship between respondents' location, ethnic group and perceived health benefit of green product

Regarding the perceptions of the quality of green products, Chi-squared analyses showed a statistically significant relationship ($p<0.05$) in the results by location and

ethnic groups with regards to two statements, namely: “green products are healthy products” and “green products are normally of high quality”. It is worth noting that majority (34.4%) of respondents who disagreed that green products are healthy products were from rural areas (Table 4-18). Moreover, and as shown in Table 4-19 (Addendum 7) 26.3% of those who disagreed that green products were healthy products were Coloured (26.3%).

Table 4-18: Chi-square test results – Cross-tabulation Location and green products are healthy products.

			Location			Total
			Rural	Urban	Sub-urban	
Green products are healthy products.	Strongly disagree	Count	0	3	0	3
		% within Location	0.00%	2.20%	0.00%	1.50%
	Disagree	Count	8	14	1	23
		% within Location	36.40%	10.30%	2.40%	11.50%
	Neither agree not disagree	Count	2	14	17	33
		% within Location	9.10%	10.30%	40.50%	16.50%
	Agree	Count	8	67	15	90
		% within Location	36.40%	49.30%	35.70%	45.00%
	Strongly agree	Count	4	38	9	51
		% within Location	18.20%	27.90%	21.40%	25.50%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

Table 4-19: Chi-square test results – Cross-tabulation Ethnic and green products are healthy products.

			Ethnic Group				Total
			African	Coloured	Indian	White	
Green products are healthy products.	Strongly disagree	Count	3	0	0	0	3
		% within Ethnic Group	3.10%	0.00%	0.00%	0.00%	1.50%
	Disagree	Count	11	5	7	0	23
		% within Ethnic Group	11.20%	26.30%	18.40%	0.00%	11.60%
	Neither agree not disagree	Count	19	3	3	8	33
		% within Ethnic Group	19.40%	15.80%	7.90%	18.20%	16.60%
	Agree	Count	34	10	23	22	89
		% within Ethnic Group	34.70%	52.60%	60.50%	50.00%	44.70%
	Strongly agree	Count	31	1	5	14	51
		% within Ethnic Group	31.60%	5.30%	13.20%	31.80%	25.60%
Total		Count	98	19	38	44	199
		% within Ethnic Group	100.00%	100.00%	100.00%	100.00%	100.00%

4.5.6 *Relationship between respondents location, ethnic group and perceived quality of green product*

Similarly, 31.8% of respondents from rural areas (Table 4-20) disagreed that green products were normally of a high quality while 21.1% of Coloured and 23.5% of Africans also disagreed on the quality of green products (Table 4-21). A noteworthy attribute from the respondents' perceptions of the quality of green products was that location of the respondents significantly impacted on the scoring patterns of their perceptions of the quality of green products.

Table 4-20: Chi-square test results – Cross-tabulation Location and green products are normally of a high quality.

			Location			Total
			Rural	Urban	Sub-urban	
Green products are normally of a high quality.	Strongly disagree	Count	1	2	0	3
		% within Location	4.50%	1.50%	0.00%	1.50%
	Disagree	Count	7	6	3	16
		% within Location	31.80%	4.40%	7.10%	8.00%
	Neither agree not disagree	Count	4	19	15	38
		% within Location	18.20%	14.00%	35.70%	19.00%
	Agree	Count	6	77	19	102
		% within Location	27.30%	56.60%	45.20%	51.00%
	Strongly agree	Count	4	32	5	41
		% within Location	18.20%	23.50%	11.90%	20.50%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

Table 4-21: Chi-square test results – Cross-tabulation Ethnic and green products are normally of a high quality.

			Ethnic Group				Total
			African	Coloured	Indian	White	
Green products are normally of a high quality.	Strongly disagree	Count	2	0	1	0	3
		% within Ethnic Group	2.00%	0.00%	2.60%	0.00%	1.50%
	Disagree	Count	7	5	4	0	16
		% within Ethnic Group	7.10%	26.30%	10.50%	0.00%	8.00%
	Neither agree not disagree	Count	23	4	6	5	38
		% within Ethnic Group	23.50%	21.10%	15.80%	11.40%	19.10%
	Agree	Count	44	8	23	26	101
		% within Ethnic Group	44.90%	42.10%	60.50%	59.10%	50.80%
	Strongly agree	Count	22	2	4	13	41
		% within Ethnic Group	22.40%	10.50%	10.50%	29.50%	20.60%
Total		Count	98	19	38	44	199
		% within Ethnic Group	100.00%	100.00%	100.00%	100.00%	100.00%

4.5.7 Relationship between respondents' location, ethnic group and perceived commensuration of price with quality of green product

Furthermore, and with regards to determining the perceptions of the price of green products among consumers and retail managers of selected Pick n Pay stores, Chi-squared analyses indicated a statistically significant relationship ($p<0.05$) in the results by location and ethnic groups with respect to two statement, namely: "the price of the product is commensurate with the quality promised" and "I feel I am contributing to the development of an eco- friendly environment when I buy green products". It was observed that 68.2% of respondents who thought the price of the product commensurate with the quality promised were whites and 58.1% of them live in urban areas (Table 4-22 and Table 4-23).

Table 4-22: Chi-square test results – Cross-tabulation Ethnic group and price of product commensurate with the quality promised.

			Ethnic Group				Total
			African	Coloured	Indian	White	
The price of the product is commensurate with the quality promised.	Strongly disagree	Count	2	0	0	1	3
		% within Ethnic Group	2.00%	0.00%	0.00%	2.30%	1.50%
	Disagree	Count	15	2	6	0	23
		% within Ethnic Group	15.30%	10.50%	15.80%	0.00%	11.60%
	Neither agree not disagree	Count	27	9	6	10	52
		% within Ethnic Group	27.60%	47.40%	15.80%	22.70%	26.10%
	Agree	Count	43	6	25	30	104
		% within Ethnic Group	43.90%	31.60%	65.80%	68.20%	52.30%
	Strongly agree	Count	11	2	1	3	17
		% within Ethnic Group	11.20%	10.50%	2.60%	6.80%	8.50%
Total		Count	98	19	38	44	199
		% within Ethnic Group	100.00%	100.00%	100.00%	100.00%	100.00%

Table 4-23: Chi-square test results – Cross-tabulation Location and price of product commensurate with the quality promised.

			Location			Total
			Rural	Urban	Sub-urban	
The price of the product is commensurate with the quality promised.	Strongly disagree	Count	2	1	0	3
		% within Location	9.10%	0.70%	0.00%	1.50%
	Disagree	Count	7	12	4	23
		% within Location	31.80%	8.80%	9.50%	11.50%
	Neither agree not disagree	Count	6	32	14	52
		% within Location	27.30%	23.50%	33.30%	26.00%
	Agree	Count	5	79	21	105
		% within Location	22.70%	58.10%	50.00%	52.50%
	Strongly agree	Count	2	12	3	17
		% within Location	9.10%	8.80%	7.10%	8.50%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

4.5.8 Relationship between respondents' location and consumer perceived price with affordability of green product

Aside from the price effect associated with the quality of green product, and as illustrated in Table 7 (Addendum 7), there was a positive response by the respondents as they felt they were contributing to the development of an eco-friendly environment when they buy green products. A point worth noting is that there was no significant difference ($p>0.05$) in the results for the statement "green products are priced in a way that makes them unaffordable to low-income earners". This implies that the price of green products impacts on the purchasing power of low-income earners. This is critical as 40.9% of respondents from rural areas believed when compared with other similar products, the price of green products was not fair to them (Table 4-24). Given the importance of income to individual purchasing power, it is understandable that 31.8% of respondents from rural also indicated that the price difference between green products and non-green product had no value for money (Table 4-25).

Table 4-24: Chi-square test results – Cross-tabulation Location and green products are priced in a way that makes them unaffordable to low income earners.

			Location			Total
			Rural	Urban	Sub-urban	
Green products are priced in a way that makes them unaffordable to low income earners.	Strongly disagree	Count	0	2	0	2
		% within Location	0.00%	1.50%	0.00%	1.00%
	Disagree	Count	6	13	4	23
		% within Location	27.30%	9.60%	9.50%	11.50%
	Neither agree not disagree	Count	9	38	16	63
		% within Location	40.90%	27.90%	38.10%	31.50%
	Agree	Count	6	60	20	86
		% within Location	27.30%	44.10%	47.60%	43.00%
	Strongly agree	Count	1	23	2	26
		% within Location	4.50%	16.90%	4.80%	13.00%
Total		Count	22	136	42	200
		% within Location	100.00%	100.00%	100.00%	100.00%

Table 4-25: Chi-square test results – Cross-tabulation Location and the price difference between green products and non-green products indicates value for money.

			Location			Total
			Rural	Urban	Sub-urban	
The price difference between green products and non-green products indicates value for money	Strongly disagree	Count	0	3	0	3
		% within Location	0.00%	2.20%	0.00%	1.50%
	Disagree	Count	7	9	3	19
		% within Location	31.80%	6.70%	7.10%	9.50%
	Neither agree not disagree	Count	4	27	16	47
		% within Location	18.20%	20.00%	38.10%	23.60%
	Agree	Count	10	74	21	105
		% within Location	45.50%	54.80%	50.00%	52.80%
	Strongly agree	Count	1	22	2	25
		% within Location	4.50%	16.30%	4.80%	12.60%
Total		Count	22	135	42	199
		% within Location	100.00%	100.00%	100.00%	100.00%

4.5.9 Respondents perceived level of green product

Moreover, and as illustrated in Table 4-26, some of the respondents who reside in rural communities were generally 'undecided' that consumers purchased green products because they had adequate knowledge about it (RO4.3=9.1%); the

information provided on the green product packaging was easy to understand and apply (RO4.4=22.7%); and the product will penetrate the market more if information was provided in indigenous languages (RO4.5=27.3%). Table 4-27 provides a further breakdown of the analysis on lack of information on green products. It can be gathered that the location (rural) and ethnic group (African) of the respondents contributed to the analysis being statistically significant.

Table 4-26: Effect of location of the respondents on the level of information on green product

	Strongly disagree 1	Disagree 2	Neither agree not disagree 3	Agree 4	Strongly agree 5
There is sufficient information about green features in green products.	13.6%	31.8%	22.7%	13.6%	18.2%
The media provides sufficient information about green products.	18.2%	31.8%	18.2%	27.3%	4.5%
Consumers purchase green products because they have adequate knowledge about it.	22.7%	22.7%	9.1%	45.5%	9.1%
The information provided on the green product packaging is easy to understand and apply.	9.1%	22.7%	22.7%	22.7%	22.7%
The product will penetrate the market more if information is provided in indigenous languages	4.5%	22.7%	27.3%	27.3%	18.2%

Table 27: Effect of location and ethnic group of the respondents on the level of information on green product

	Location (rural)					Ethnic				
	SD	D	UN	A	SA	SD	D	UN	A	SA
There is sufficient information about green features in green products.	13.6%	31.8%	22.7%	13.6%	18.2%	9.2%	18.4%	26.5%	32.7%	13.3%
The media provides sufficient information about green products.	18.2%	31.8%	18.2%	27.3%	4.5%	10.2%	21.4%	26.5%	34.7%	7.1%
Consumers purchase green products because they have adequate knowledge about it.	13.6%	22.7%	9.1%	45.5%	9.1%	5.1%	12.2%	28.6%	38.8%	15.3%

With regards to the uncertainty of green products in South African society, the scoring patterns by the respondents across location, ethnic group, and education level were significant ($p < 0.05$). Specifically, and as shown in Figure 4-8, the majority (57.1) of respondents who agreed that consumers purchased green products as they were certain of the benefits of green products lived in sub-urban areas and were mostly white (65.9%). Similarly, and across locations (Figure 4-9), 61.9% of respondents agreed to the question '*I am certain that when I buy a green product will be of a good quality'* also lived in sub-urban areas.

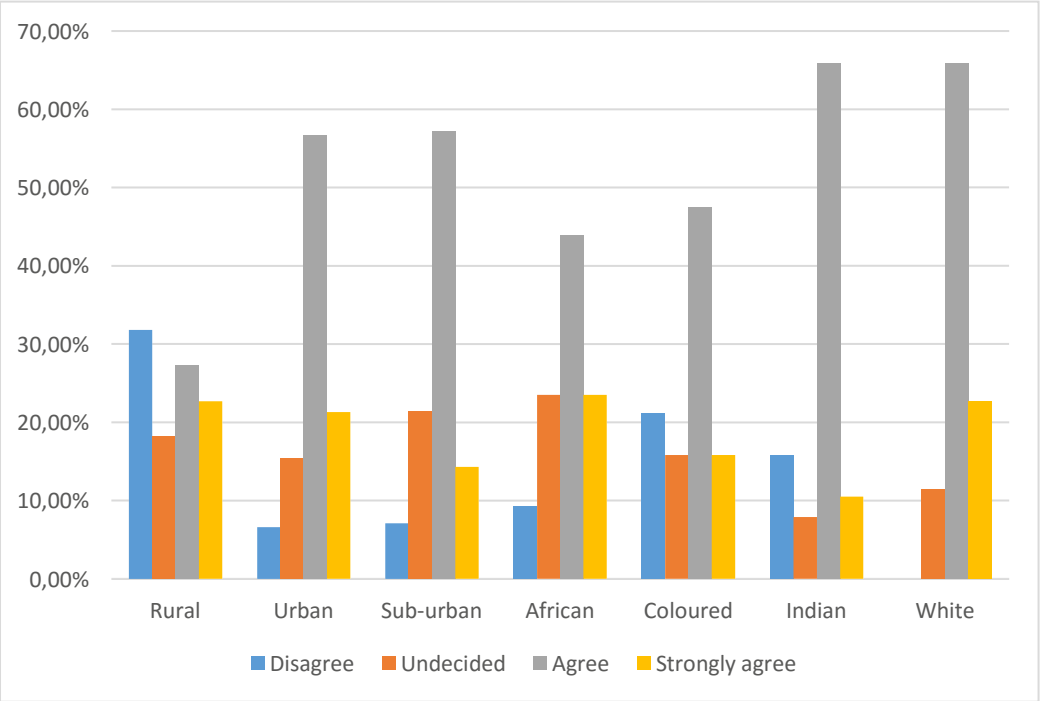

Figure 4-8: The effect of consumer location and ethnic group of the benefits of buying green products.

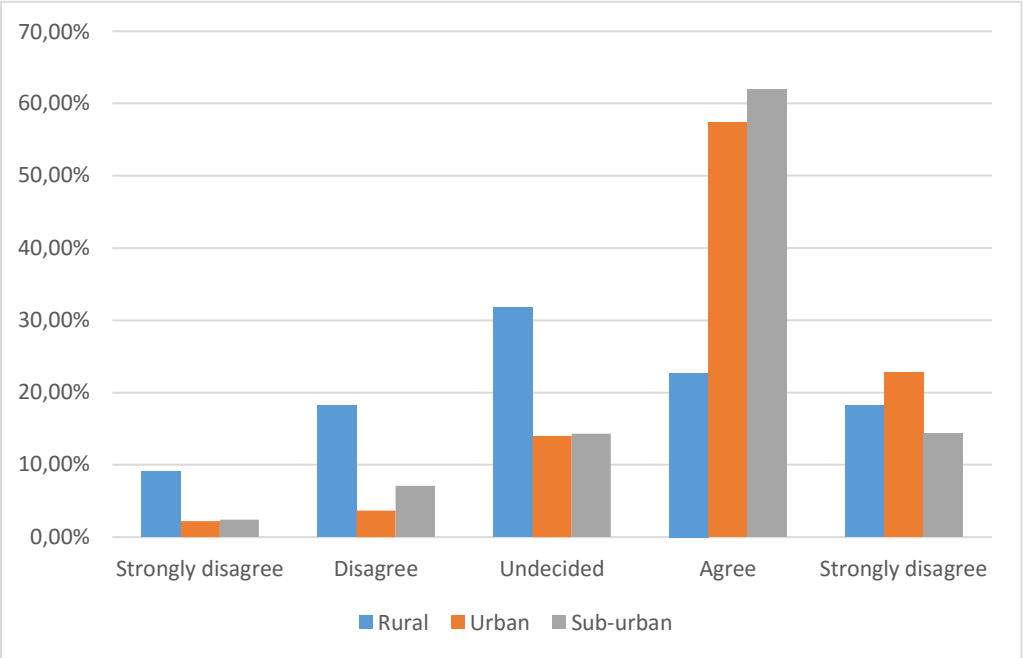

Figure 4-9: The effect of consumer location and their response to the quality of green product purchased

On the other hand, and across locations of the respondents, the majority (53.7%) of those who agreed to the question '*I am sure that green products will make a different to the environment'* lived in urban areas (Figure 4-10). From Table 7 (Addendum 7), it can also be gathered that there were significant differences across location, ethnic group and education level. More than two-thirds of the respondents who agreed to the question '*using green products will provide a better future for generations to come*' had matric (48.6%); live in sub-urban (50.0%); and are mainly Indians and whites (63.2%: 56.8%). It can be inferred that the majority of the respondents in this study who lived in the city contributed to this analysis being statistically different (Figure 4-11).

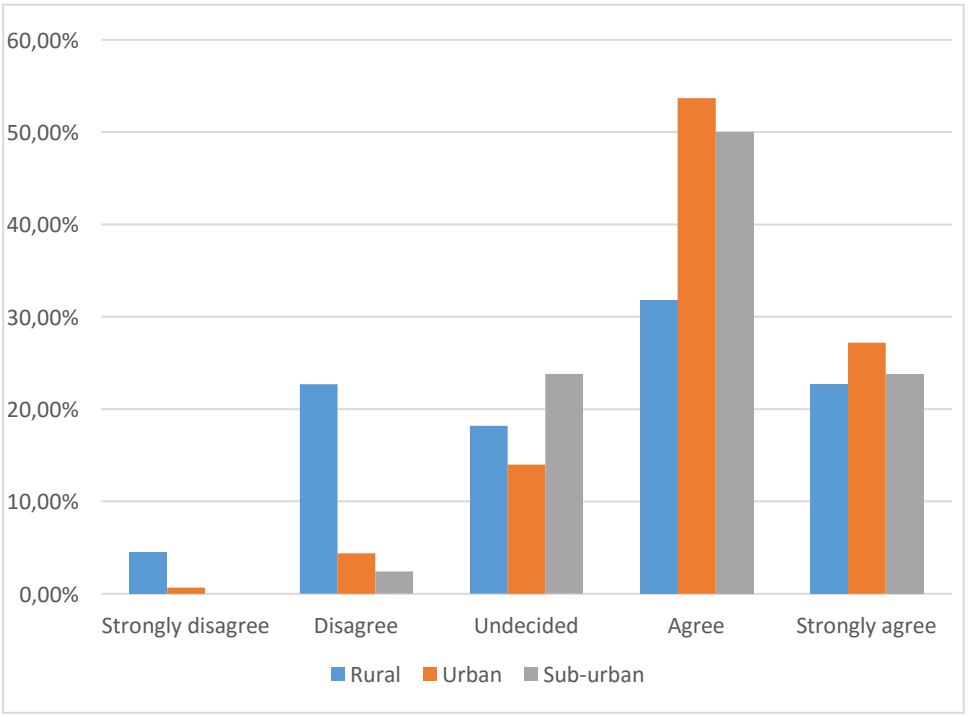

Figure 4-10: The effect of consumer location and their response in the benefits of green product to the environment.

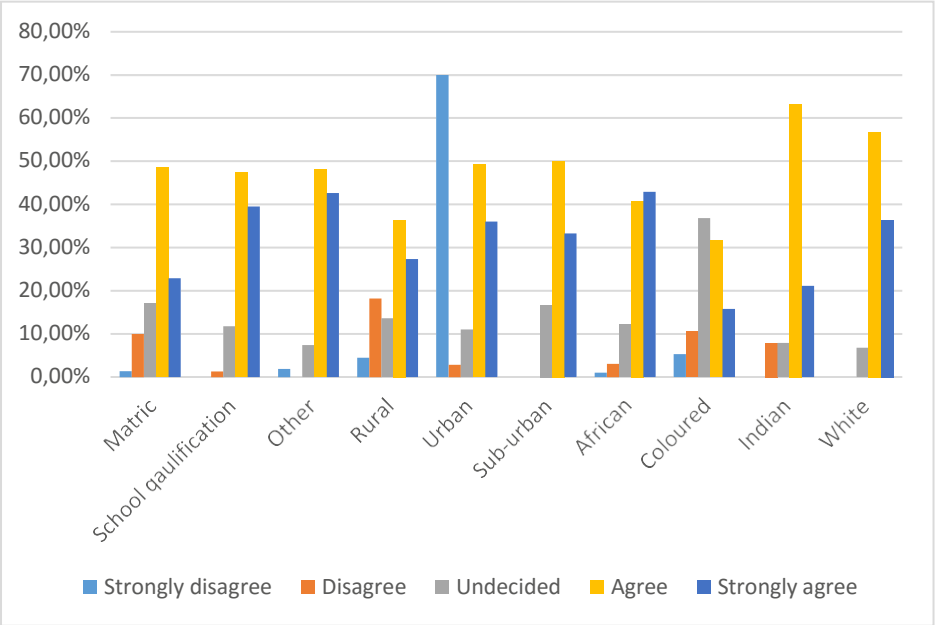

Figure 4-11: The effect of consumer education, location, and ethnic group on the future of green product in society

4.6 Correlations

According to Johnson and Christensen (2012), the Bivariate Spearman's correlation, is used to quantify the relationship between two variables that are not measured on continuous scales. In this study, Bivariate Spearman's analyses were performed on the (ordinal) data, which yielded several correlations. As shown in Table 8 (Addendum 8), this study highlights results only at the highest linear correlations above r=0.4 at the significance level of 0.01. The conclusions of this analyses are summarised in the following sections. A noteworthy attribute of this summary is the relatively high correlations implied that the awareness of green products in South Africa was reasonably consistent.

4.6.1 Overview of correlation analysis

With reference to Table (8) in Addendum (8), respondents indicate that:

- There appears to be a positive correlation that indicates that the awareness of green products improves with the benefits of using green products; the quality

of green products; where to buy green product; the recyclable nature of green product; its health benefits; and the ease of use, make and preparations.

- Having established that awareness of green products is critical to its patronage, manufacturers of green product as well as retailers should endeavour to highlight the green features of the products they stock. This will have encouraged the consumers to know where to buy green product as well as knowing the benefits of using green products.
- The more they were aware of green products, the more easily they would identify recyclable packaging and vice versa.
- Green products are of better quality, particularly when compared to products in the same category that are not green. This can be attributed to manufacturers and retailers of green products who make consumers aware of the green features of the product they stock.
- The price difference between green products and non-green products did not only indicate value for money, but also enabled the respondents to contribute to the development of an eco-friendly environment when they buy green products. As such, purchasing green products will make a difference from an environmental context
- Access to information on the green features of green products was moderately provided by the media, hence they were more certain that when they buy green products, it will be of good quality because of their adequate knowledge on green product overall.
- For green products to penetrate the market more readily, respondents agreed that more information should be provided in indigenous languages. This will help the majority of the population to adopt green product, when they could easily read and understand the information indicated on the green products.
- Thus, it can be inferred that within the South African context, using green products will provide a better future for generations to come.

4.7 Factor analysis

This section reports on the themes that emerged from the data obtained from the Likert scale items. In general, and as derived from the rotated Varimax with Kaiser normalisation, the survey elicited respondents' awareness of green products in terms

of five main critical themes, namely awareness of green products; perceptions of the quality of green products; perceptions of the price of green products among consumers and retail managers; lack of information on green products; and uncertainty of place of green products in society.

Before the interpretation of the findings from the factor analysis, it is worth mentioning that as a general requirement, the Kaiser-Meyer-Olkin measurement of sampling adequacy should be greater than 0.50 and Bartlett's test of Sphericity less than 0.05 for factor analysis procedure. As shown in Table 4-28, the average loading of items by components was above the acceptable Kaiser-Meye values (> 0.50) and Bartlett's values (< 0.05).

Factor analysis is a statistical technique whose main goal is data reduction. A typical use of factor analysis is in survey research, where a researcher wishes to represent a number of questions with a small number of hypothetical factors (with reference to Table 4-29-4-33).

The principal component analysis was used as the extraction method, and the rotation method was Varimax and Kaiser Normalisation. This is an orthogonal rotation method that minimises the number of variables that have high loadings on each factor. It simplifies the interpretation of the factors. Factor analysis/loading shows inter-correlations between variables. Equally significant, and as shown in Table (4-29-4-33), items of questions that loaded similarly imply measurement along a similar factor. An examination of the content of items loading at or above 0.5 (and using the higher or highest loading in instances where items cross-loaded at greater than this value) effectively measured along the various components. Notably, the results of this analysis revealed that all the factors constituted the various sections (themes) loaded perfectly along as single component in each instance. This implies that the statements that constituted the sections measured what they set out to measure.

Table 4-28: KMO and Bartlett's Test

		Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's Test of Sphericity		
			Approx. Chi-Square	df	Sig.
RO1	Awareness of green products	0.851	606.481	10	0.000
RO2	Perception of the quality of green products	0.847	420.222	10	0.000
RO3	Perceptions of the price of green products among consumers and retail managers	0.732	260.535	10	0.000
RO4	Lack of information on green products	0.732	323.976	10	0.000
RO5	Uncertainty of place of green products in society	0.838	382.493	10	0.000

Table 4-29: Awareness of green products rotated Component Matrix

RO1	Component
	1
I am aware of what a green product is	0.852
I am aware of where I can buy green products	0.885
I am aware of the benefits of using green products	0.905
Manufacturers of green products make consumers aware of the green features of their products	0.806
Retailers stocking green products make consumers aware of the green features of the products they stock	0.717
Extraction method: Principal component analysis	
a. 1 components extracted.	

Table 4-30: Perceptions of the quality of green products rotated Component Matrix

RO2	Component
	1
Green products are healthy products.	0.750
The packaging of green products is recyclable.	0.785
Green products are normally easy to use/make/prepare.	0.779

Green products are normally of a high quality.	0.865
Green products are of a better quality compared to products in the same category that are not considered green.	0.812
Extraction Method: Principal component analysis.	
a. 1 components extracted.	

Table 4-31: Perceptions of the price of green products among consumers and retail managers rotated Component Matrix

RO3	Component
	1
The price of the product is commensurate with the quality promised.	0.676
When compared with other similar products, the price of green products are fair	0.645
Green products are priced in a way that makes them unaffordable to low income earners.	0.775
The price difference between green products and non-green products indicates value for money	0.831
I feel I am contributing to the development of an eco-friendly environment when I buy green products	0.634
Extraction Method: Principal component analysis.	
a. 1 components extracted.	

Table 4-32: Information on green products rotated Component Matrix

RO4	Component
	1
There is sufficient information about green features in green products.	0.705
The media provides sufficient information about green products.	0.783
Consumers purchase green products because they have adequate knowledge about it.	0.795
The information provided on the green product packaging is easy to understand and apply.	0.811
The product will penetrate the market more if information is provided in indigenous languages	0.584
Extraction Method: Principal component analysis.	
a. 1 components extracted.	

Table 4-33: Certainty of place of green products in society rotated Component Matrix

RO5	Component
	1
Consumers purchase green products as they are certain of the benefits of green products.	0.772
I am certain that when I buy a green product will be of a good quality.	0.736
I am sure that green products will make a difference to the environment.	0.815
I am certain that majority of the population will adopt the usage of green products in the future	0.792
Using green products will provide a better future for generations to come.	0.820
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

4.8 Qualitative interviews

In addition, semi-structured interviews were conducted with ten selected Pick n Pay retail managers in Durban, South Africa. The analysis of the data gathered from the interviews resulted in the identification of the following four broad themes, namely:

1. Strategies used for the awareness of green product among customers.
2. Challenges of selling green products.
3. Problems emanating from a lack of awareness of green products.
4. Relevance of advertising platforms in marketing green products.

Themes were identified to further explain the findings that were obtained in the quantitative analysis (survey questions). In supporting the discussion of the themes, relevant quotes from the data generated from interviews were used. Data from semi-structured interviews was transcribed verbatim and used as such during discussion.

4.8.1 Theme 1: Strategies used for the awareness of green products to customers

The retail managers, particularly those with Pick n Pay outlets located at Musgrave, acknowledged that they were yet to work on a definitive advertising strategy to create awareness among their customers since they have just been newly-introduced to green products. However, a statement made was:

"We sometimes host small promotions inside the store promoting the newly added products".

They maintained that:

"They use different terms when advertising green products to make it easy for our customers to understand that we are advertising a different product from the normal one".

In terms of the strategies currently employed in creating awareness to customers on the green products they stock, the retail managers elaborated that:

"At Pick n Pay we have personalise our plastic bags to reduce, reuse and recycle and we believe that is strategically enough to make the public (consumers) aware that we do have some of the green products in our store".

4.8.2 Theme 2: Challenges of selling green products

When asked to recount the challenges they experienced in getting the green products to sell, the retail managers (Musgrave) voiced the opinion that there were not many challenges as most of their customers already knew what green products were. In probing more, they pointed out that:

"Our store is situated in a suburban so it not that difficult to get these products to sell, as most of our consumers are eco-friendly so they understand perfectly".

On the other hand, most of the retail managers with Pick n Pay stores located at Berea centre indicated that they were not sure if their customers were aware of green products. One of the aforementioned retail managers said while answering to the questions on the challenged of selling green products that:

"They hardly sell because most of our customers are university students so they do not really care of what they buying".

From the above assertion, it is sufficient to say that the location and ethnic group of the customers contributed to their level of awareness of green products. It is worth mentioning that Pink n Pay stores at Berea centre are located within a walking distance

from Durban University of Technology. The background of the university students who normally patronise the Pink n Pay stores at Berea may have contributed to their knowledge and awareness of green products. For example, it is noted that DUT attracts a large percentage of students who are from highly marginalised socio-economic backgrounds (Bawa 2011). This, however, implies that students, particularly the black students, may come from families that do not have the financial resources to support them, which could have had a negative influenced on what they shop for. This is further supported by one of the retail managers located at Pink n Pay stores in Musgrave that:

> *"Most consumers do not have understanding of what green products are so it quite difficult to get these products to sell. However, there are different types of shoppers. For example, we have more sophisticated kind of shoppers who always opt for the best and we also have different ethnic groups. In this category, white people seems to have perfect understanding of what green products are and also the benefits of purchasing green products".*

4.8.3 Theme 3: Problem emanating from lack of awareness of green products

With regards to the challenges experienced by retail stores in selling of green products, most of the retail managers at Pick n Pay outlets (Musgrave and Berea centre) are of the opinion that green product are not selling at the rate that they should be selling. One of the retail managed argued that:

> *"No! Green products should be number one selling products in all retail stores".* He was however optimistic… *"that after this research if the public get hold of this information it might sell as it should be selling".*

Similar sentiments were shared by his colleagues (Berea centre) who highlighted that a lack of knowledge and understanding from the consumer on green products as well as some of the management policies limited the rapid selling of green products in their stores. In addition, some of the retail managers interviewed believed the limited stocking of green products was a critical factor that limited their sales. According to them:

"Our consumers are aware of what green products are more especially white consumers. They even ask why we do not stock more green products in our retail store"

The most noteworthy attribute resulting from this theme is that the number of green products stocked in retail stores has an influence on sales and patronage by consumers. This was further corroborated by one of the retail managers who stated:

"*If we can have more of green products, I believe they can sell even more".*

From the foregoing theme, it appears that stocking green products, particularly creating awareness of the stocked products to consumers is critical in the overall acceptance of green products by South African society.

4.8.4 Theme 4: Relevance of advertising platforms in marketing green products

As documented in literature, advertisement is the most effective tool that marketers and advertisers use to get consumers' attention, which helps consumers to elaborate on their knowledge about product attributes and specifications.

With reference to relevant advertising platforms utilised by the Pick n Pay stores in marketing their green products to consumers, the retail managers (Musgrave and Berea) pointed out that:

"At Pick n Pay we use Television and papers to advertise and all our products are advertised there".

Other advertising platforms highlighted by the retail managers include print media and electronic media such as the internet.

Part of the objective of this study was to determine the perception of the lack of information on green marketing among consumers and retail managers. Of interest, the above-mentioned marketing promotional tools are important, particularly in the context of increasing the level of green product awareness among South Africa Consumers.

4.9 Conclusion

Considering the aforementioned results, the hypothesis stated in Chapter One, Section 1.7 was accepted as consumers in South Africa have different levels of awareness of green products. Overall, the data obtained from the quantitative instrument indicated that the location of the consumers (rural, urban, and sub-urban) as well as the ethnic group (African, Coloured, Indian, and White) identified by the consumers strongly correlates with their use of green products. The quantitative results showed that more consumers, particularly white South Africans living in urban or sub-urban areas, will adopt green products irrespective of the price of green products. In addition, the interviews conducted revealed that most South African consumers do not have understanding of what green products are. This was largely attributed to a lack of adequate information on green products. The salient feature of this chapter therefore suggests that the use of indigenous languages will help educate the South African consumers on the benefits associated with the use of green products. Ultimately, adopting green products by South African consumers will add positive benefits to the environment as well as encouraging future generations to adopt green products. The next chapter will provide the conclusions drawn from this study. This will include the identification of limitations, which will steer studies in terms of future research.

CHAPTER 5: Conclusions and Recommendations

5.1 Introduction

The previous chapter presented the results of the study. It analysed and interpreted the data gathered from the interviews and the questionnaires administered to Pick n Pay retailers and managers. The findings of the study were then compared to the literature review to determine the nature of green marketing among the consumers and managers of the selected Pick n Pay stores in the area of Durban. This chapter therefore presents the conclusions that were drawn from the study. It further presents a set of recommendations based on the interpretation of the result. It also provides a summary of the study.

5.2 Summary of the study

The aim of the study (as indicated in Chapter 1, section 1.4) was to investigate the perceptions of green marketing of consumers and retail managers in the selected Pick n Pay stores. Moreover, the study aimed to understand the level of awareness of green products among South African consumers.

In the light of the above encompassing aim, the objectives of the study were to:

- Determine the level of awareness of green products among consumers and retail managers of selected Pick n Pay retailers.
- Determine the perceptions of the quality among consumers and retail managers of selected Pick n Pay retailers affecting adoption of green products.
- Determine the perceptions of the price among consumers and retail managers of selected Pick n Pay retailers affecting adoption of green products.
- Determine the perceptions of the lack of information on green marketing/ products among consumers and retail managers of selected Pick n Pay retail stores in Durban affecting adoption of green products.

- Determine causative features and reasons undermining the adoption of green products.

In attempting to address the research objective and to achieve the above-mentioned aims, different methods were employed. Firstly, an in-depth literature review was conducted (see Chapter 2) to define and describe the concepts as well as documented issues related to green marketing. This was followed by an empirical survey to address the listed research objectives and aims. The methodological section discussed the necessary data-collection techniques and appropriate statistical procedures to carry out a value-added analysis (see Chapter 3). The data collected for the study included responses from consumers and retail managers of selected Pick n Pay retail stores.

The analysis strategy was executed using the statistical software packages, SPSS version 24 (Statistical Software Package for Social Sciences) and a content analysis. Chi-square analyses were carried out to measure the scoring patterns of the respondents. Negative statements were collapsed to represent a level of disagreement, whereas positive statements were used to represent the level of agreement. A second chi-square test was performed to determine whether there was a statistically significant relationship between the variable (rows and columns). Bivariate correlation was also performed on the ordinal data to determine the direction of relationship between the variables. Furthermore, factor analyses were carried out to verify the underlying structure of the data. In addition, to determine the implications of retail managers' perceptions regarding green marketing and green products awareness among consumers in South Africa, the following questions guided the investigation:

- What strategies do you use to make consumers aware of the green products you stock?
- What challenges does the store experience in getting the green products to sell?
- Do you think green products are selling as well as they should?
- Are there any problems that the store experiences regarding the lack of awareness of consumers on green products?

- Does your store utilize the relevant advertising platforms to market the green Products?

To answer the research questions posed and to achieve the above-mentioned aims, thematic analysis was used to gauge the perceptions of green marketing of retail managers in the selected Pick n Pay stores.

5.2.1 Discussion of the results

Based on the results presented, the hypothesis as outlined in Chapter 1 Section 1.7, was accepted as there were significant differences in the level of awareness of green products among consumers in South Africa. This section will therefore link the findings of this study to the existing literature to demonstrate how each of the study objectives contributed to the current knowledge on the perceptions of green product by consumers in South Africa.

5.2.1.1 The level of green product awareness

As reviewed in Chapter 2, Mohanasundaram (2012) indicated that green consumers are more educated and wealthier than the average consumer. Importantly, it can be gathered from the quantitative phase that the awareness of green products varies with the location and ethnic group of the consumers in South Africa. Given the economic disparity between white and black South African, it is worth mentioning that the level of awareness of green products was higher amongst white South African consumers when compared with the black consumers. Equally significantly, considering that over 70% of South African population are black Africans, the findings of this study were consistent with Ottman *et al.* (2013) that South Africans spend an insignificant amount on green products due to the low level of awareness of green products in South Africa. To give credence to the above assertion, the retail managers interviewed had pointed out that a lack of knowledge and understanding from the consumer on green products as well as some of the management policies limited the rapid selling of green products in their stores.

5.2.1.2 The perception of quality

As stated in in Chapter 2, the quality of a product is a vital factor in creating faithful customers who are satisfied with the product. Product quality is the outcome of a good performance i.e. the extent to which it can meet a customer's requirements without defects. In terms of South African consumers' perceived quality of green product, the product quality was evaluated by five items, namely green product are healthy products, the packaging of green product is recyclable, green products are normally easy to use/make/prepare, green products are normally of a high quality, and green products are of a better quality compared to products in the same category that are not green (see Addendum 7). The findings from Chi-Square analyses showed a statistically significant relationship ($p<0.05$) by location and ethnic groups with regards to two statements, namely, "green products are healthy products" and "green products are normally of high quality". Moreover, and contrary to reports by Morel and Kwakye (2012) that consumers think that conventional products have a better quality, the findings from this study revealed that consumers in South Africa perceived that green products are of better quality, particularly when compared against products in the same category that are not green. Arguably, the perceived high quality of green product by consumers in South Africa could be attributed to their perception of the health benefits of green products. As indicated by the correlation analysis, there was a positive relationship ($r = 0.486$) between "*green products are of a better quality compared to products in the same category that are not considered green*" and *"I am aware of the benefits of using green products"*. In support of the correlation results, the interviewed conducted with the retail managers at Pick n Pay stores had thrown their weight in favour of quality of green products. In their express views "green product should be number one selling products in all retail stores".

5.2.1.3 The perception of price

According to Morel and Kwakye (2012: 47), the price of green products is one of the most important factors during the consumers' decision-making. Although most consumers of green products are willing to pay more for green products, the study revealed that most black consumers are of the view that the price of green products makes it unaffordable to the low-income earners. This supports the argument of Chang (2011: 20) that people think that green products are expensive when compared

against conventional products. Additionally, the consumers' perception of price of green products reported in this study correlates with Finistera do Paco *et al.* (2009), which confirms that the high cost of green products led to resistance among consumers that are reluctant to buy green products. Regardless of this, the study reveals that most South African consumers will adopt the use of green products because of the conscious need to protect the environment for future generation. This is consistent with Machiba's view (2009) that the rise in consumers' ecological consciousness in recent years has increased consumers' willingness to pay for green products. A similar sentiment was shared by the interviewed retail managers. When asked to recount any challenges their stores experiences selling green products. It was revealed that the eco-friendly consciousness of their customers, particularly with those residing the suburban location, makes it easier to sell the green product.

5.2.1.4 The perception of lack of information

According to do Paço, Raposo and Leal Filho (2009), the wrong perception or lack of sufficient information on green products has an adverse effect on some of the products. The empirical findings from this study, however, showed that advertisement helps to provide information with regards to green products to the consumers. These findings further support the work of Keller (2009) who reported that advertisement can increase salience and awareness of a brand. Despite this, it is noted that green products will penetrate the market more when information is provided in indigenous languages. As such, to attract green product costumers, retail shopping centre managements should convey their advertisement in South African indigenous languages.

Furthermore, the findings of the interviews revealed that most South African consumers do not understand what green products are. Therefore, retail shopping centres are now utilising two main strategies namely: sales promotion and personalisation of green products such as recycle reuse etc. to increase awareness and understanding of green products among consumers. This agrees with Hashem and Al-Rifai (2011) who noted that the influence of the green consumer will grow as environmental awareness among consumer's spreads and improvements are made to the environmental information available through eco-labelling schemes, consumer groups and consumer guides.

Overall, one of the significant results emerging from this study is that communication is a key strategy in any promotional, customer care or marketing activity of green products. Such communication should be effective, persuasive and managed in a formal and structured way which will fits into overall benefits of the consumers. Retail shopping centres may use a number of communication tools such advertising (both print and internet), sales promotion, personal selling and sponsorship. These marketing strategies have shown to be effective in creating awareness of consumer products. This in turn, can play a positive role in generating revenue to promote the overall success of marketing green products among South African consumers.

5.3 Conclusions

The main purpose of this study was to gauge the perceptions of consumers and retail managers in selected Pink n Pay outlets within Durban, South Africa. This study found that the understanding of what green products are varies among green product consumers. As a result, increased attention has been focused on green marketing, particularly the strategies that are used to convey green information to consumers. The following section therefore presents the conclusions to the study based on the research objectives outlined in Chapter 1, Section 1.5.

5.3.1 The level of awareness of green products among consumers and retail managers of selected Pick n Pay retailers

The Chi-square analysis conducted in this study explicitly revealed that the level of green product awareness varies among consumers in South Africa. The study showed that the location and ethnic group of the shoppers has a significant relationship with their perceived awareness of green products. The study conclusively showed that the awareness of green products was higher among white shoppers when compared with black shoppers. Similarly, the study also reveals that consumers living mostly in sub-urban and urban areas within Durban are more aware of green as against those living in rural areas.

Significantly, the semi-structured interviews conducted with retail managers, reinforced the variability in the level of awareness of green product among shoppers. More so, the study found that shoppers within the Musgrave sub-urban area are likely

more conscious and aware of green product when compared against those shopping at the Berea centre Pink n Pay outlets. Overall, the retail managers who participated in the study called for more stocking and marketing of green products in their stores. More importantly, this study found that conveying green information in indigenous languages will help promote the adoption of green products.

5.3.2 The perceptions of the quality among consumers and retail managers of selected Pick n Pay retailers affecting adoption of green products

The Chi-square analyses conducted in this study indicate that the perceptions of quality among green product consumers were generally positive. More so, the correlation analysis revealed that accesses to information on the green features of green products provided by the media were directly related to the perceived quality of green products. Consequently, green product consumers were certain that when they buy green products, it will be of good quality because of their adequate knowledge of green product. Overall, a noteworthy attribute from perceptions of the quality of green products by shoppers was that the location of the respondents significantly impacted on their perceptions of the quality of green products. The study revealed that shoppers living in rural areas were generally unsure of the quality of green products. This also reiterated the call for the use of indigenous language in conveying of green product information.

5.3.3 Determine the perceptions of the price among consumers and retail managers of selected Pick n Pay retailers affecting the adoption of green products

One of the most prominent aspects of this study is that the price of green products did not change the perceptions of green products among the consumers. The study revealed that the prices of green products were commensurate with the quality promised. This was expressed in the form of their perceived contribution to the development of an eco-friendly environment.

5.3.4 The perceptions of the lack of information on green marketing/products among consumers and retail managers of selected Pick n Pay retail stores in Durban affecting the adoption of green products

This study further revealed that information with regards to the green features of green products is adequately provided by the manufacturer as well as the retailer stocking the green products.

Significantly, the semi-structured interview with retail managers at selected Pink n Pay outlets revealed that management policies limited the rapid selling of green products.

In particular, and in terms of achieving the objective to *determine causative features and reasons undermining the adoption of green products,* this study found that limited stocking of green contributed to a lack of awareness among consumers. It is very important that creating awareness of the stocked products to consumers is critical in the overall acceptance of green products by South African society.

5.4 Limitations

By focusing on awareness of green products, this study contributes to the literature on the perceptions of green products among South African consumers. This study selected only one city (Durban) in South Africa. Hence, the sample size the study adopted may not be a perfect representation of the entire South African population. Consequently, the generalisability of this study is limited.

5.5 Recommendations

This study investigated perceptions of consumers and retail managers in selected Pink n Pay outlets within Durban, South Africa. Arising from this study, it is interesting to note that awareness of green products varies among consumers in South Africa. Equally significantly, and emerging from this study, is that environmental concerns as well as the price of green products were key influential factors in determining consumers' purchase decisions. It is therefore recommended that attractive green product message contents should be aggressively developed that would stimulate interest in green products, particularly among most black consumers in South Africa.

More so, and regarding promotion of environmental consciousness among consumers, corporate companies should endeavour to build a positive image in the minds of their customers. This could be implemented by incorporating strategic advertisements of green products that would target those customers with different attitudes and attributes towards green products. As such, marketers of green products should insist on providing clear information about green products such as the use of eco-friendly labels to promote customer familiarisation with products. This will help enhance their knowledge and awareness of green products.

Furthermore, it was observed that green products are priced in a way that makes them unaffordable to majority of the consumers. Consequently, some of the consumers

particularly the blacks who make up majority in South Africa ignore to buy green products because of its perceived high price. It is therefore recommended that marketers should price green product to make it affordable to everyone in respective of their income to encourage purchase. This could be done by pricing green products with the price as non-green products.

Additionally, government and non-government companies are always strong predictors that play an important role in encouraging consumers to go green and embrace green purchasing behaviour. For example, the French government has recently posed a ban on the use of plastic cups and spoons that are not green. The South African government could follow similar legislative processes to the French by taking initiatives to expand consumer awareness of green products. This could be in the form of: (1) creating effective marketing campaigns or environmental-related activities, (2) developing a policy that will issue grants to companies implementing green marketing, which will encourage companies to utilise their resources to provide environment friendly products. In the light of the aforementioned recommendations, future investigation into awareness of green products will focus on the role of government in public awareness of green products. Additionally, future research work will develop a green marketing model that will aid in assessing the marketing strategies currently utilised by corporate companies in South Africa and their potential impact on the green market.

References

Abdul-Muhmin, A.G. 2002. Effects of suppliers' marketing program variables on industrial buyers' relationship satisfaction and commitment. *Journal of Business and Industrial Marketing*, *17*(7): 637-651.

Adams, K.A. & Lawrence, E.K. 2014. *Research methods, statistics, and applications*. Los Angeles: Sage Publications.

Adams, P. 2015. A study on key issues in green marketing viz a viz green products. *Scholedge International Journal of Management and Development*, 1 (2): 5-11.

Alexander, G.J. and Buchholz, R.A. 1978. Corporate social responsibility and stock market performance. *Academy of Management Journal*, *21*(3): 479-486.

Altunisik, R., Coskun, R., Bayraktaroglu, S. and Yildirim, E. 2004. Sosyal bilimlerde arastirma yöntemleri (3. bs). Istanbul: Sakarya Kitabevi.

Aman, A.L., Harun, A. and Hussein, Z., 2012. The influence of environmental knowledge and concern on green purchase intention the role of attitude as a mediating variable. *British Journal of Arts and Social Sciences*, 7(2): 145-167.

Amatruda, J. Energy, R.V. 2010. Evaluating and Selecting Green Products. *Whole Building Design Guide Website, National Institute of Building Sciences, Washington, DC. Web: www. wbdg. org/resources/greenp roducts. php. Coddington, W.(1993), Environmental Marketing, New York, McGraw-Hill*.

Anderson, J.R. 2013. *The architecture of cognition*. London: Psychology Press.

Aronson, J. 1995. A pragmatic view of thematic analysis. *The qualitative report*, *2*(1): 1-3.

Asadoorian, M.O. and Kantarelis, D. 2005. *Essentials of inferential statistics*. New York: University Press of America.

Azad, N., Nobahari, S., Bagheri, H., Esmaeeli, M. and Rikhtegar, M. 2013. An exploration study on factors influencing green marketing. *Management Science Letters*, *3*(5):1369-1374.

Babbie, E. 1995. *The practice of social research.* 7th ed. Belmont: Wadsworth.

Babbie, E. and Mouton, J. 2006. *The practice of social research.* Cape Town: Wadsworth Publishing Company.

Baloyi, B. and Isaacs, G. 2015. South Africa's 'fees must fall' protests are about more than tuition costs. *CNN* (online) Available: https://www.google.co.za/search?q=GreenWorx&oq=GreenWorx&aqs=chrome..69i57j0l5.1128j0j8&sourceid=chrome&ie=UTF-8# (Accessed November 14 2016).

Bandura, A., 1989. Human agency in social cognitive theory. *American psychologist*, *44*(9):1175.

Banerji, J. Dubey, A.K. 2014. Green marketing: Necessary as well as opportunity for industries in current era. *International Journal of Commerce, Business and Management*, 3 (5): 697-706.

Bawa, A.C. 2011. VC talks: Communique regarding student protest action. Durban University of Technology, Durban. 26 January 2011.

Bearden, W.O., Netemeyer, R.G. and Teel, J.E. 1989. Measurement of consumer susceptibility to interpersonal influence. *Journal of consumer research*, *15*(4):473-481.

Berman, B. 2011. December 2010 Dashboard: Year End Tally online. Available://:www.hybridCARs.com.

Blanche, M. T., Durrheim, K. and Painter, D. 2006. *Research in practice: Applied methods for the social sciences*. Cape Town: Juta and Company Ltd.

Bonini, S. Oppenheim, J., 2008. Cultivating the green consumer. *Stanford Social Innovation Review*, *6*(4): 56-61.

Boyle, A. 2011. Developments in the international law of environmental impact assessments and their relation to the Espoo Convention. *Review of European Community & International Environmental Law*, *20*(3): 227-231.

Boztepe, A., 2016. Green marketing and its impact on consumer buying behavior. *European Journal of Economic and Political Studies*, *5*(1): 5-21.

Brécard, D., Hlaimi, B., Lucas, S., Perraudeau, Y. and Salladarré, F. 2009. Determinants of demand for green products: An application to eco-label demand for fish in Europe. *Ecological economics*, *69*(1): 115-125.

Brown, S.P. and & Huntington, H.G. 2008. Energy security and climate change protection: Complementarity or tradeoff? *Energy Policy*, *36*(9): 3510-3513.

Brynard, P. and Hanekom, S.X., 1997. *Introduction to research in Public Administration and related academic disciplines*. JL van Schaik Academic.

Cantor, J.H., 2013. *Psychology at Iowa: Centennial Essays*. London: Psychology Press.

Chahal, H. and Bala, M., 2012. Significant components of service brand equity in healthcare sector. *International journal of health care quality assurance*, 25(4): 343-362.

Chamorro, A., Rubio, S. and Miranda, F.J., 2009. Characteristics of research on green marketing. *Business Strategy and the Environment*, *18*(4): 223-239.

Check, J. and Schutt, R.K. 2012. *Research Methods in Education.* Los Angeles, USA: SAGE Publications, Inc.

Chen, T.B. and Chai, L.T., 2010. Attitude towards the environment and green products: consumers' perspective. *Management science and engineering*, *4*(2): 27.

Cherian, J. and Jacob, J., 2012. Green marketing: A study of consumers' attitude towards environment friendly products. *Asían social science*, *8*(12): 117.

Cherrier, H., Black, I.R. and Lee, M., 2011. Intentional non-consumption for sustainability: consumer resistance and/or anti-consumption?. *European Journal of Marketing*, 45(11/12): 1757-1767.

Choudhary, M. and Seth, N., 2011. Integration of green practices in supply chain environment the practices of inbound, operational, outbound and reverse logistics. *International Journal of Engineering Science and Technology*, *3*(6): 4995-4993.

COP. 2011. 17th Session of the Conference of the Parties to the UNFCCC (COP 17) and seventh session of the Meeting of the Parties to the Kyoto Protocol (COP/MOP 7) online. Available://http.www.preventionweb.net/go/15365 (Accessed 12 June 2016).

Christensen, L.B., Breakwell, G.M., Hammond, S. and Fife-Schaw, C. 2001. *Experimental Methodology*. American University of Beirut.

Churchill, G. and Iancobucci, D. 2005. Marketing research: *Methodological foundations*. 9th ed. Mason: South-Western.

Clem, W. 2008. Things you need to know about going green (online) available at: http: //www.greencar.com/articles/ 5-things-need-going green. php accessed: 23 August 2014.

Coddington, W. 1993. *Environmental marketing: positive strategies for reaching the green consumer*. McGraw-Hill Companies.

Cohen, L., Manion, L. and Morrison, K. 2007. *Research Methods in Education*. 6th ed. London: Routledge Taylor and Francis Group.

Cohen, L., Manson, L. and Morrison, K. 2000. *Research methods in education*. 5th ed. New York: Routledge Publishers.

Cohn and Wolfe, Landor Associates, Penn, Schoen & Berland, 2011. The 2011 Green Brands survey. [Online], [Retrieved June 15, 2012], http://www.cohnwolfe.com/en/ideas-insights/whitepapers/green-brands-survey-2011.

Creswell, J.W. 2008. *Educational research: Planning, conducting, and evaluating.* London: SAGE Publications.

Creswell, J.W. 2009. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. 3rd ed. London: SAGE Publications.

Creswell, J. W. and Clark, V. L. P. 2007. *Designing and conducting mixed methods.* California: SAGE Publications.

Creswell, J.W. 1994. Research design: Quantitative and qualitative approaches. *Thousand Oaks: Sage Publication*.

Creswell, J.W. 2003. Research design: Qualitative, quantitative, and mixed methods design. *Sage, London*.

Creswell, J.W. 2015. Revisiting mixed methods and advancing scientific practices. In: Hesse-Briber, S.N. and Johnson, B.R. ed. *The Oxford handbook of multimethod and mixed methods research inquiry*. London: Oxford University Press, 87.

Creswell, J.W. and Plano-Clark, V.L. 2011. *Designing and Conducting Mixed Methods Research.* 2nd ed. California: SAGE Publications.

Creswell, J.W., Klassen, A.C., Plano-Clark, V.L. and Smith, K.C. 2011. *Best Practices for Mixed Methods Research in the Health Sciences.* National Institutes of Health (NIH): Office of Behavioral and Social Sciences Research (OBSSR). Available: http://obssr.od.nih.gov/mixed_methods_research (Accessed 12 May 2013).

Dangelico, R.M. and Vocalelli, D., 2017. "Green Marketing": An analysis of definitions, strategy steps, and tools through a systematic review of the literature. *Journal of Cleaner Production*, 165: 1263-1279

De Vos, A. S., Strydom, H., Fouché, C. B. and Delport, C.S.L. 2005. *Research at grass roots*. 3rd ed. Pretoria: Van Schaik.

DeBare, I. 2008. Clorox Expects Greenbacks from Green Cleaners. *San Francisco Chronicle*.

Denzin, N. K., and Lincoln, Y. S. 1994. *Handbook of qualitative research*. Los Angeles: Sage Publications.

D'Souza, C. 2004. Ecolabel programmes: a stakeholder (consumer) perspective. *Corporate Communications: An International Journal*, *9*(3): 179-188.

D'Souza, C., Taghian, M. and and Lamb, P. 2006. An empirical study on the influence of environmental labels on consumers. *Corporate communications: an international journal*, *11*(2): 162-173.

Doszhanov, A. and Ahmad, Z.A., 2015, January. Customers' intention to use green products: The impact of green brand dimensions and green perceived value. In *SHS Web of Conferences* (Vol. 18). EDP Sciences

Elkington, J., Hailes, J. and & Makower, J., 1990. Green Consumer.

Environment News Press Centre South Africa. 2016.

Falkner, R., 2007. The political economy of 'normative power 'Europe: EU environmental leadership in international biotechnology regulation. *Journal of European Public Policy*, *14*(4): 507-526.

Field, A. 2009. *Discovering statistics using SPSS*. 3rd ed. London: Sage Publications.

Finisterra do Paço, A., Barata Raposo, M.L. and Filho, W.L. 2009, "*Identifying the green consumer: a segmentation study*", *Journal of Targeting, Measurement and Analysis for Marketing*, 17(1): 17-25.

Gadiraju, T., 2016. Investigating the determinants of recycling behavior in youth by using theory of planned behavior. MA Thesis. University of Florida.

George, D. and & Mallery, P. 2011. *SPSS for Windows Step by Step: A Simple Guide and Reference 18.0 Update*. 11th ed. Boston: Allyn & Bacon/Pearson.

Geyer-Alléye, E. and Zacarias-Farah, A. 2002. *Towards sustainable household consumption?: trends and policies in OECD countries*. Organisation for Economic Co-operation and Development.

Glasow, P.A. 2005. Fundamentals of survey research methodology. *Retrieved January*, *18*: 2013.

Goss, P.E., Ingle, J.N., Alés-Martínez, J.E., Cheung, A.M., Chlebowski, R.T., Wactawski-Wende, J., McTiernan, A., Robbins, J., Johnson, K.C., Martin, L.W. and Winquist, E. 2011. Exemestane for breast-cancer prevention in postmenopausal women. *New England Journal of Medicine*, *364*(25): 2381-2391.

Goss, J.R., Silvera, H.D., Laufer, D., Gillespie, K. and Arsena, A. 2011b. Effects of green products on price perceptions. *Advances in Consumer Research*, 39: 833.

Gupta, K.R., Jankowska, M.A. and Maiti, P. 2007. *Global environment: problems and policies*. 1st ed. India: Atlantic Publishers & Dist

Gravetter. F.J. & Lori-Ann B. Forzano. 2012. *Research Methods for the Behavioral Sciences*. 4th ed. Springer Science.

Green Worx. 2013. Green Worx CS-Green cleaning products producer in South Africa. Available: https://www.google.co.za/search?q=GreenWorx&oq=GreenWorx&aqs=chrome..69i57j0l5.1128j0j8&sourceid=chrome&ie=UTF-8# (Accessed July 15 2016).

Greenwald, A.G., Nosek, B.A. and Banaji, M.R. 2003. Understanding and using the implicit association test: I. An improved scoring algorithm. *Journal of personality and social psychology*, *85*(2): 197.

Hart, S.L. and Dowell, G. 2011. Invited editorial: A natural-resource-based view of the company fifteen years after. *Journal of management*, *37*(5): 1464-1479.

Hart, S.L. and & Milstein, M.B. 2003. Creating sustainable value. *The Academy of Management Executive*, *17*(2): 56-67.

Hart, Stuart L. 1995. A natural-resource-based view of the company. *Academy of management review,* 20(4): 986-1014.

Hashem, T.N. and Al-Rifai, N.A. 2011. The influence of applying green marketing mix by chemical industries companies in three Arab States in West Asia on consumers' mental image. *International Journal of Business and Social Science*, *2*(3).

Hauser, J.R. and & Shugan, S.M. 1980. Intensity measures of consumer preference. *Operations Research*, *28*(2): 278-320.

Henion, K.E. 1972. The effect of ecologically relevant information on detergent sales. *Journal of Marketing Research*, 10-14.

Henion, K.E., 1976. *Ecological Marketing,* Columbus, Ohio: Grid.

H'Mida, S. 2009, July. Factors contributing in the formation of consumers' environmental consciousness and shaping green purchasing decisions. In *Computers & Industrial Engineering, 2009. CIE 2009. International Conference on* (pp. 957-962). IEEE.

Home Sustainable Business, Green Business Checkers wins gold for 100% recycled carrier bag Checkers wins gold for 100% recycled carrier bag (online). Available: http://www.environment.co.za/sustainable-green-business-news/checkers-wins-gold-for-100-recycled-carrier-bag.html) (Accessed September 30 2016).

Hussey, J. and Hussey, R. 1997. *Business research. A practical guide for undergraduate and postgraduate students.* Houndsmill: Macmillan.

Isaacs, S.M., 2015. *Consumer Perceptions of Eco-Friendly Products* (Doctoral dissertation, Walden University).

Jansson, J., Marell, A. and Nordlund, A., 2010. Green consumer behavior: determinants of curtailment and eco-innovation adoption. *Journal of consumer marketing*, *27*(4): 358-370.

Johnson, B. and Christensen, L., 2008. *Educational research: Quantitative, qualitative, and mixed approaches*. 3rd ed. Los Angeles: Sage

Johnson, B. and Christensen, L. B. 2012. *Educational Research-Quantitative, Qualitative and Mixed Approaches*. 4th ed. California: SAGE Publications.

Joshi, Y. and Rahman, Z. 2015. Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, *3*(1): 128-143.

Joshi, Y., Rahman, Z., Leal-Filho, W. and Paradowska, M. 2016. Predictors of young consumer's green purchase behaviour. *Management of Environmental Quality: An International Journal*, 27 (4).

Kahle, L.R. 1996. Social values and consumer behavior: Research from the list of values. In *The psychology of values: The Ontario symposium,* Vol. 8, pp. 135-151). Mahwah, NJ: Lawrence Erlbaum Associates.

Kathambi, G.J. 2014. A*doption of green marketing practises by hotels in Mombasa county, Kenya.* Doctoral dissertation, School of Business, University of Nairobi.

Kim, S.-Y., Yeo, J., Sohn, S. H., Rha, J.-Y., Choi, S., Choi, A.-y. and Shin, S. 2012. Toward a composite measure of green consumption: an exploratory study using a Korean sample. *Journal of family and economic issues*, 33 (2): 199-214.

Kim, Y. and Choi, S.M., 2005. Antecedents of green purchase behavior: An examination of collectivism, environmental concern, and PCE. *NA-Advances in Consumer Research Volume 32.*

Kirgiz, A.C. 2016. Green Marketing Mix. In *Green Marketing: A Case Study of the Sub-Industry in Turkey.* London: Palgrave Macmillan.

Kleindorfer, P.R., Singhal, K. and & Wassenhove, L.N. 2005. Sustainable operations management. *Production and operations management*, *14*(4): 482-492.

Kontic, I. 2010. Greening the marketing mix: A case study of the Rockwool Group (online). BBA, Jönköping International Business School. Available at: http://www.diva-portal.org/smash/get/diva2:329044/FULLTEXT01.pdf [Accessed: 04 November 2015].

Hsu, C. 2016. Consumers' Willingness To Pay (WTP) for Environmentally Friendly Products: Premiums on Low-Priced vs. High-Priced Goods "Ross Starr ECON 191 Final Term Paper 11 March 2016."

Kumar, P. and Ghodeswar, B.M. 2015. Factors affecting consumers' green product purchase decisions. *Marketing Intelligence & Planning*, *33*(3): 330-347.

Lai, K.H., Cheng, T.C.E. and Tang, A.K. 2010. Green retailing: factors for success. *California Management Review*, *52*(2): 6-31

Landor Associates. 2009. *Green brands, global insight: Findings from the 2009 Image Power green brands survey*. http://www.landor.com/index.cfm?do=thinking.article&storyid=749. Accessed 4 January 2015.

Laroche, M., Bergeron, J. and Barbaro-Forleo, G. 2001. Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of consumer marketing*, *18*(6): 503-520.

Laroche, M., Kim, C. and Zhou, L. 1996. Brand familiarity and confidence as determinants of purchase intention: An empirical test in a multiple brand context. *Journal of business Research*, *37*(2): 115-120.

Lee, K. 2008. Opportunities for green marketing: young consumers. *Marketing intelligence and planning*, *26*(6): 573-586.

Lee, K. 2009. Gender differences in Hong Kong adolescent consumers' green purchasing behavior. *Journal of consumer marketing*, *26*(2): 87-96.

Lee, H.J. and Park, S.Y. 2013. Environmental orientation in going green: A qualitative approach to consumer psychology and sociocultural factors of green consumption. *Journal of Global Scholars of Marketing Science*, *23*(3): 245-262.

Leedy, P. D. 1997. *Practical research, planning and design.* 6th ed. New Jersey: Sage.

Lemmer, S. 2011. Brand loyalty to Arts Festivals: Case of KKNK (online). Masters` degree, North-West University. Available: http//www.dspace.nwu.ac.za/bitstream/handle/10394/8493/lemmer_s.pdf?sequence=1 (Accessed 12 June 2013).

Levy, P.S. and Lemeshow, S. 2013. *Sampling of populations: methods and applications*. New York: John Wiley & Sons.

Lewis, P., Thornhill, A. and Saunders, M. 2003. *Employee relations: understanding the employment relationship*. London: Pearson Education.

Lin, P.C. and Huang, Y.H. 2012. The influence factors on choice behaviour regarding green products based on the theory of consumption values. *Journal of Cleaner Production*, *22*(1): 11-18.

Lincoln, Y.S. and Guba, E.G. 1985. *Naturalistic inquiry*. London: Sage.

Lind, D.A., Mason, R.D. and Marchal, W.G. 2002. *Statistical Techniques in Business and Economics*. New York: McGraw Hill.

Liobikienė, G., Mandravickaitė, J. and Bernatonienė, J. 2016. Theory of planned behaviour approach to understand the green purchasing behaviour in the EU: A cross-cultural study. *Ecological Economics*, *125*: 38-46.

Machiba, T. 2010. Eco-innovation for enabling resource efficiency and green growth: development of an analytical framework and preliminary analysis of industry and policy practices. *International Economics and Economic Policy*, *7*(2-3): 357-370.

Maheswaran, D. and Chaiken, S. 1991. Promoting systematic processing in low-motivation settings: effect of incongruent information on processing and judgment. *Journal of personality and social psychology*, *61*(1): 13.

Manaf, N.A.A., Atan, R. and Mohamed, N. 2006. Environmentally sensitive companies' social responsibility and reporting: A study of Malaysian companies. In *The 5th Australasian Conference on Social and Environmental Accounting Research, Victoria University of Wellington, New Zealand*.

Mandese, J. 1991. New study finds green confusion. *Advertising age*, *62*(45): 1-56.

Marshall, H. 2002. What do we do when we code data. *Qualitative research journal*, *2*(1): 56-70.

Masoumik, S.M., Abdul-Rashid, S.H. and Olugu, E.U. 2015. Importance-performance analysis of green strategy adoption within the Malaysian manufacturing industry. *Procedia CIRP*, *26*: 646-652.

Maxwell, J.A., 2012. *Qualitative research design: An interactive approach*. Thousand Oaks: Sage Publications.

May, T. 2011. *Social research: Issues, methods and process*. 4th ed. London: McGraw-Hall Education.

McCarty, J.A. and Shrum, L.J., 2001. The influence of individualism, collectivism, and locus of control on environmental beliefs and behaviour. *Journal of Public Policy & Marketing*, *20*(1): 93-104.

McDaniel, C. and & Gates, R. 2010. *Marketing with SPSS*. 8th ed. New Jersey: John Wiley & Sons Inc.

McDaniel, C. and Gates, R. 2011. *Marketing research*. Wiley Global Education.

McGrath, R.G., MacMillan, I.C. and Venkataraman, S. 1995. Defining and developing competence: A strategic process paradigm. *Strategic management journal*, *16*(4): 251-275.

Mertens, D.M. 1998*. Research methods in education and psychology*. Thousand Oaks: Sage.

Miles, M.P. and Covin, J.G. 2000. Environmental marketing: A source of reputational, competitive, and financial advantage. *Journal of business ethics*, *23*(3): 299-311.

Miyazaki, A.D., Grewal, D. and Goodstein, R.C. 2005. The effect of multiple extrinsic cues on quality perceptions: A matter of consistency. *Journal of consumer research*, *32*(1): 146-153.Mohanasundaram, V., 2012. Green marketing–challenges and opportunities. *International Journal of Multidisciplinary Research*, *2*(4): 66-73.

Mohanasundaram, V. "Green marketing–challenges and opportunities." *International Journal of Multidisciplinary Research* 2, no. 4 (2012): 66-73.

Mouton, J. 2006*. Understanding social research*. 6th. ed. Pretoria: Van Schaik.

Mudaly, S., 2013. *A research model to improve understanding of the extent of usage of enterprise resource planning systems in a university.* Doctoral dissertation, Durban University of Technology.

Mungeria, M.G. 2014. *Green Marketing practices by Supermarkets in Nairobi Central Business District, Kenya*. Doctoral dissertation, School of Business, University of Nairobi.

Musango, J.K., Brent, A.C. and Bassi, A.M., 2014. Modelling the transition towards a green economy in South Africa. *Technological Forecasting and Social Change*, *87*: 257-273.

Nadaf, Y.B.R. and Nadaf, S.M., 2014. Green marketing: challenges and strategies for Indian companies in 21st century. *International Journal of Research in Business Management*, *2*(5): 91-104.

Neuman, L. W. 1997. *Social research methods: qualitative and quantitative approaches*. 3rd ed. New York: Allyn and Bacon.

Nunan, D. 1992. *Research methods in language learning*. Cambridge: Cambridge University Press.

Obayelu, A.E. 2016. Sustainable consumption and green marketing in developing countries: Contemporary perspective using Nigeria and Kenya as a case studies. In: Ayantunji, G ed. Handbook of research on consumerism and buying behaviour in developing countries. USA: Business Science, 436.

O'Leary, Z., 2013. *The essential guide to doing your research project*. Thousand Oaks: Sage.

Ottman, J.A., Stafford, E.R. and Hartman, C.L. 2006. Avoiding green marketing myopia: ways to improve consumer appeal for environmentally preferable products. *Environment: Science and Policy for Sustainable Development*, *48*(5):22-36.

Ottoman, J. 2009. Green marketing really has gone mainstream, Harvard Business Review Blog Network (Retrieved December 14, 2011

from http://blogs.hbr.org/leadinggreen/2009/07/green-marketing-has-come-a-lon.html)

Parties to the Protocol and signature and ratification of the Supplementary Protocol, Convention on Biological Diversity http://bch.cbd.int/protocol/parties/ (last visited March 23, 2012).Peattie, K. and Charter, M., 2003. Green marketing. *The marketing book*, *5*: 726-755.

Polonsky, M.J. 1994. Green marketing regulation in the US and Australia: the Australian checklist. *Greener Management International*, *5*(1): 44-53.

Polonsky, M.J. 2011. Transformative green marketing: Impediments and opportunities. *Journal of Business Research*, *64*(12):1311-1319.

Rahbar, E. and Abdul Wahid, N., 2011. Investigation of green marketing tools' effect on consumers' purchase behavior. *Business strategy series*, *12*(2): 73-83.

Rahbar, E. and Abdul Wahid, N., 2011. Investigation of green marketing tools' effect on consumers' purchase behavior. *Business strategy series*, *12*(2): 73-83.

Roberts, J.A. 1996. Green consumers in the 1990s: profile and implications for advertising. *Journal of business research*, *36*(3): .217-231.

Robinson, F. 2008. Going green: What does it really mean? [Online] Available at: http://eziniearticles.com/? Going-green!-What-does-it-real-mean? &kd=2267926. Accessed: 1 April 2014.

Rompotis, G. G. 2010. Investing overseas from home: The case of Asian iShares. *Journal of Asset Management*, 11 (1): 1-18.

Saari, U.A., Baumgartner, R.J. and Mäkinen, S.J., 2017. Eco-Friendly Brands to Drive Sustainable Development: Replication and Extension of the Brand Experience Scale in a Cross-National Context. *Sustainability*, *9*(7), p.1286

Sachdev, S. and Mahna, V. 2013. Green Marketing Mix. *Asian Journal of Research in Business Economics and Management*, *3*(10): 70.

Salkied, N. J. 2007. *Statistics for people who think they hate statistics*. 3rd ed. London: Sage Publications.

Sapsford, R., Jupp, V., Sapsford, R. and Jupp, V. 1996. Validating evidence. *Data collection and analysis*, pp.1-24.

Sarantakos, S. 2005. *Social Research*. 3rd ed. Palgrave Macmillan, New York.

Scheyvens, R. 2014. *Development fieldwork: A practical guide*. Los Angeles: Sage.

Sekaran, U. and Bougie, R. 2013. Research Methods for Business- A skill Building Approach. 6th ed. United Kingdom: John Wiley and Son.

Seliger, H.W. and Shohamy, E.G. 1989. *Second language research methods*. Oxford University Press.

Shamdasani, P., Chon-Lin, G.O. and Richmond, D. 1993. Exploring green consumers in an oriental culture: Role of personal and marketing mix factors. *NA-Advances in Consumer Research Volume 20*.

Sharma, S., Shimp, T.A. and Shin, J., 1995. Consumer ethnocentrism: A test of antecedents and moderators. *Journal of the academy of marketing science*, *23*(1): 26-37.

Shu, X.O., Yang, G., Jin, F., Liu, D., Kushi, L., Wen, W., Gao, Y.T. and Zheng, W., 2004. Validity and reproducibility of the food frequency questionnaire used in the Shanghai Women's Health Study. *European journal of clinical nutrition*, *58*(1): 17-23.

Smith, K., Lawrence, G. and Richards, C., 2010. Supermarkets' governance of the agri-food supply chain: Is the 'corporate-environmental food regime evident in Australia?. *International Journal of Sociology of Agriculture and Food*, *17*(2): 140-161.

Solomon, M.R., 2014. *Consumer behavior: Buying, having, and being*. 10th ed. Engelwood Cliffs, NJ: Prentice Hall.

Stafford, J.E. and Cocanougher, A.B. 1977. Reference group theory. *Selected aspects of consumer behaviour*, 361-380.

Suki, N.M., 2013. Green Awareness Effects on Consumers'purchasing Decision: some insights from Malaysia. *International Journal of Asia-Pacific Studies*, 9(2): 33-54.

Suri, R. and Monroe, K.B. 2003. The effects of time constraints on consumers' judgments of prices and products. *Journal of consumer research*, *30*(1): 92-104.

Tantawi, P.I., O'Shaughnessy, N.J., Gad, K.A. Ragheb, M.A.S. 2009. Green consciousness of consumers in a developing country: a study of Egyptian consumers. *Contemporary Management Research*, *5*(1).

Tekade, A.B. and Sastikar, S.S., 2015. Present Green Marketing: Importance and challenges in Customer satisfaction. *International Journal of Administrative Management, Commerce and Economics, 3*:308-312.

Thakur, K.S. and Gupta, S. 2012. Exploration of Green Shift: Shift from trendy marketing to environmental friendly green marketing. *International Journal of Arts and Commerce*, *1*(7): 122-133.

The Economic Times. 2010. Wipro first India company to offer 100% recyclable and toxin-free computers (online). Available://:www.economictimes.indiatimes.com.

Thomas, G., 2013. *How to do your research project: A guide for students in education and applied social sciences*. Sage.

Van der Merwe, S. and Oliff, M.D., 1990. Customers drive corporations. *Long Range Planning*, *23*(6): 10-16.

Vazifehdust, H., Taghipourian, M.J. and Gharib, Z., 2011. Social marketing, green marketing: the extension of marketing concept. *European Journal of Economics, Finance and Administrative Sciences*, *41*: 20-33.

Veal, A.J. 2006. *Research methods for leisure and tourism: A practical guide*. New York: Pearson Education.

Veal, A.J. 2009. *Research methods for leisure and tourism: a practical guide*. 3rd ed. London: Pearson Prentice-Hall.

Venkatachalam, L. 2015. Informal water markets and willingness to pay for water: a case study of the urban poor in Chennai City, India. *International Journal of Water Resources Development*, *31*(1): 134-145.

Vindigni, G. Janssen, M.A. and Jager, W., 2002. Organic food consumption: a multi-theoretical framework of consumer decision making. *British Food Journal*, *104*(8): 624-642.

Walliman, N. 2011. *Your research project: Designing and planning your work*. Thousand Oaks: Sage Publications.

Walsh, M. 2001. *Research made real: A guide for students*. London: Nelson Thornes.

Wasik, J. 1992. Green marketing: marketing is confusing, but patience will pay. *Marketing News*, *26*(21):16-18.

Welman, C., Kruger, F. and Mitchell, B. 2005. *Research methodology: The aims of research*. 3rd ed. Vasco Boulevard: Oxford University Press.

Welman, C., Kruger, F. & Mitchell, B. 2009. *Research methodology*. 3rd ed. Johannesburg: Oxford University Press Southern Africa.

Willcox, M., 2015. *The Business of Choice: Marketing to Consumers' Instincts*. 3rd ed. London: Pearson Education.

Yin, R.K. 2009. *Case Study Research: Design and Methods*. 4th ed. California: SAGE Publications.

Addendum 1: GATEKEEPER LETTER

768 Dube Village
Inanda
4309

August 2015

Musgrave Centre, Musgrave Rd,
Durban, 4001
Dear Sir/Madam

I am studying towards the attainment of a Master's Degree in Marketing and Retail at the Durban University of Technology. I will appreciate if your store authorizes me to conduct research on the Perceptions of retail managers and consumers of green products at select pick n pay stores in Durban. The overall objective of this study is to investigate the perception of green marketing of consumers and retail managers amongst the top-five retail stores of South Africa.

Some among the customers and retail managers of these (retail) stores will be requested to fill a questionnaire. No personal or sensitive questions will be asked as only questions relating to green marketing will be posed to the respondents of the study. These questions will be self-administered by the researcher at the premises of these retail stores. Please be assured that details regarding the participants' responses will be kept anonymous and confidential. Should you desire, the final report will be made available to you. If you have any queries about this research project please contact me on 073 294 6065 or email me at slungilemncwabe@yahoo.com. If you require further clarification or would you like to share concerns regarding the research do not hesitate to contact my supervisor, Dr Meintjes on 0313735385 or by email at cornem@dut.ac.za

Thank you for your time and co-operation.

Yours sincerely,

Silungile Mncwabe

Department of Marketing and Retail, Durban University of Technology

Addendum 2: Questionnaire

Perceptions of retail managers and consumers of green products at select pick n pay stores in Durban.

Please place an X in the selected space/box to indicate your answer

Section A: Demographic information

What is your gender?

Male female

Which age group do you belong to?

26-35 36 to 45 46 – 55 56 and above

Educational level?

Matric Post-school qualification Other (specify)

Table 1: Location (*please tick only one below*)

Rural	Urban	Sub-Urban

Section B: Questionnaire items

Table 2: Awareness of green products

	Strongly disagree 1	Disagree 2	Neither agree not disagree 3	Agree 4	Strongly agree 5
I am aware of what a green product is.					
I am aware of where I can buy green products.					
I am aware of the benefits of using green products.					
Manufacturers of green products make consumers aware of the green features of their products.					
Retailers stocking green products make consumers aware of the green features of the products they stock.					

Table 3: Perception of the quality of green products

	Strongly disagree 1	Disagree 2	Neither agree not disagree 3	Agree 4	Strongly agree 5
Green products are healthy products.					
The packaging of green products is recyclable.					
Green products are normally easy to use/make/prepare.					
Green products are normally of a high quality.					
Green products are of a better quality compared to products in the same category that are not considered green.					

Table 4: To determine the perceptions of the price of green products among consumers and retail managers of selected stores of the top 5 SA retailers affecting adoption of green products.

	Strongly disagree 1	**Disagree 2**	**Neither agree not disagree 3**	**Agree 4**	**Strongly agree 5**
The price of the product is relative to the quality promised.					
When compared with other similar products, the prices of green products are fair					
Green products are priced in a way that makes them unaffordable to low income earners.					
The price difference between green products and non-green products indicates value for money					
I feel I am contributing to the development of an eco-friendly environment when I buy green products					

Table 5: Lack of information on green products

	Strongly disagree 1	**Disagree 2**	**Neither agree not disagree 3**	**Agree 4**	**Strongly agree 5**
There is sufficient information about green features in green products.					
The media provides sufficient information about green products.					
Consumers purchase green products because they have adequate knowledge about it.					
The information provided on the green product packaging is easy to understand.					
The product will penetrate the market more if information is provided in indigenous languages.					

Table 6: Doubt of place of green products in society

	Strongly disagree **1**	**Disagree** **2**	**Neither agree not disagree** **3**	**Agree** **4**	**Strongly agree** **5**
Consumers purchase green products as they are certain of the benefits of green products.					
I am certain that when I buy a green product it will be of a good quality.					
I am sure that green products will make a difference to the environment.					
I am certain that the majority of the population will adopt the usage of green products in future					
Using green products will provide a better future for generations to come.					

Thank you for your participation.

Addendum 3: INTERVIEW GUIDE

Title: Perceptions of retail managers and consumers of green products at select pick n pay stores in Durban.

This guide is intended to collect data from the management/supervisor of the chosen Pick ‘n Pay i.e. Berea Pick ‘n Pay and Musgrave Pick ‘n Pay. The purpose of this study is to determine the nature of green marketing in Pick n Pay retail stores including product modification and processing to packaging and green advertising. This study will investigate this from a management/supervisors’ perspective.
Participants’ personal details and data collected in this study will remain anonymous ensuring confidentiality of the participants.

What strategies do you use to make consumers aware of the green products you stock? Probe about the effectiveness of these strategies if applicable
What challenges does the store experience in getting the green products to sell?
Do you think green products are selling as much as they should? Probe participant if the answer is no.
Are there any problems that the stores experience regarding the lack of awareness of consumers of green products?
Does your store utilize the relevant advertising platforms to market the green products?

Thank you!

Addendum 4: Pick n Pay (Berea Centre) Questionnaire Gatekeeper Consent form

Gatekeeper Consent Form

I agree that selected customers of this store (Rowen) be asked to participate in this study.. I have had the project explained to me, and I have read the statement above, which I keep for my records.

I understand that store customer participation is voluntary, that they can choose not to participate in part or all of the project, and that they can withdraw at any stage of the project without being penalised or disadvantaged in any way.

And

I understand that any information provided is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Gatekeepers' name Rowen

Signature _____

Date 03/08/2015

DUT DURBAN UNIVERSITY OF TECHNOLOGY

INSTITUTIONAL RESEARCH ETHICS COMMITTEE

Interview Consent Form

I agree to take part in the project specified above. I have had the project explained to me, and I have read the statement above, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher	☐ Yes	☐ No
I agree to allow the interview to be audio-taped	☐ Yes	☐ No

And

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

And

I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research.

And

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and/or

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Gatekeepers' name Hazel

Signature _____

Date 23/04/12

Gatekeeper Consent Form

I agree that selected customers of this store (Robin Pay Mysore) be asked to participate in this study.. I have had the project explained to me, and I have read the statement above, which I keep for my records.

I understand that store customer participation is voluntary, that they can choose not to participate in part or all of the project, and that they can withdraw at any stage of the project without being penalised or disadvantaged in any way.

And

I understand that any information provided is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Gatekeepers' name Ansari

Signature _____

Date 23/04/12

Addendum 6: Pick n Pay Interview Gatekeeper Consent for

Interview Consent Form

I agree to take part in the project specified above. I have had the project explained to me, and I have read the statement above, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher	☑ Yes	☐ No
I agree to allow the interview to be audio-taped	☑ Yes	☐ No

And

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

And

I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research.

And

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and/or

I understand that data from the interview will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Gatekeepers' name _____

Signature _____

Date 03/08/2015

Addendum 7: Ethical Clearance letter

MANAGEMENT SCIENCES: FACULTY RESEARCH ETHICS COMMITTEE (FREC)

13-Mar -18
Student No: 21240970
FREC No: 154/15FREC

Dear Ms SB Mncwabe

MASTER OF MANAGEMENT SCIENCES: MARKETING

TITLE: PERCEPTIONS OF RETAIL MANAGERS AND CONSUMERS OF GREEN PRODUCTS AT SELECT PICK & PAY STORES IN DURBAN

Please be advised that the FREC Committee has reviewed your proposal and the following decision was made: Ethical Level 2

Date of FRC Approval: 27 November 2015

Approval has been granted for a period of two years from the date above, after which you are required to apply for safety monitoring and annual recertification. Please use the form located at the Faculty. This form must be submitted to the FREC at least 3 months before the ethics approval for the study expires.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the FREC according to the FREC SOP's. Please note that ANY amendments in the approved proposal require the approval of the FREC as outlined in the FREC SOP's.

Yours Sincerely

_____

Prof JP Govender
Deputy Chairperson: FREC

Addendum 8: Hypothesis testing

Table 7: Pearson Chi-Square Tests showing relationship between variables

It is worth mentioning that the highlighted values indicates significant difference

Pearson Chi-Square Tests						
		Gender	Age Group	Educational Level	Location	Ethnic Group
I am aware of what a green product is.	Chi-square	2.061	16.851	14.934	15.82	25.194
	df	4	16	8	8	12
	Sig.	0.724	0.395	0.06	.045*	.014*
I am aware of where I can buy green products.	Chi-square	5.886	15.552	15.356	19.869	20.678
	df	4	16	8	8	12
	Sig.	0.208	0.485	0.053	.011*	0.055
I am aware of the benefits of using green products.	Chi-square	14.823	21.428	11.242	19.359	24.464
	df	4	16	8	8	12
	Sig.	.005*	0.163	0.188	.013*	.018*d
Manufacturers of green products make consumers aware of the green features of their products.	Chi-square	6.493	15.901	10.963	33.238	15.577
	df	4	16	8	8	12
	Sig.	0.165	0.46	0.204	.000*	0.211
Retailers stocking green products make consumers aware of the green features of the products they stock.	Chi-square	7.156	14.52	23.985	7.75	23.483
	df	4	16	8	8	12
	Sig.	0.128	0.56	.002*	0.458	.024*
Green products are healthy products.	Chi-square	1.199	16.879	14.328	37.758	27.868
	df	4	16	8	8	12
	Sig.	0.878	0.393	0.074	.000*	.006*
The packaging of green products is recyclable.	Chi-square	1.559	12.418	6.701	17.086	18.828
	df	4	16	8	8	12
	Sig.	0.816	0.715	0.569	.029*	0.093
Green products are normally easy to use/make/prepare.	Chi-square	3.448	20.512	4.437	21.942	17.314
	df	4	16	8	8	12
	Sig.	0.486	0.198	0.816	.005*	0.138
Green products are normally of a high quality.	Chi-square	5.179	16.247	10.342	33.537	22.828
	df	4	16	8	8	12
	Sig.	0.269	0.436	0.242	.000*	.029*
Green products are of a better quality compared to products in the same category that are not considered green.	Chi-square	1.577	12.007	10.986	21.339	19.33
	df	4	16	8	8	12
	Sig.	0.813	0.744	0.202	.006*	0.081

The price of the product is commensurate with the quality promised.	Chi-square	7.133	16.393	7.42	24.391	22.161
	df	4	16	8	8	12
	Sig.	0.129	0.426	0.492	.002*	.036*
When compared with other similar products, the price of green products are fair	Chi-square	0.468	23.282	10.761	21.394	19.4
	df	4	16	8	8	12
	Sig.	0.977	0.106	0.216	.006*	0.079
Green products are priced in a way that makes them unaffordable to low income earners.	Chi-square	2.473	11.07	3.377	14.55	18.154
	df	4	16	8	8	12
	Sig.	0.649	0.805	0.909	0.069	0.111
The price difference between green products and non-green products indicates value for money	Chi-square	6.252	9.892	8.735	24.078	7.068
	df	4	16	8	8	12
	Sig.	0.181	0.872	0.365	.002*	0.853
I feel I am contributing to the development of an eco-friendly environment when I buy green products	Chi-square	1.036	8.944	11.767	35.656	45.24
	df	4	16	8	8	12
	Sig.	0.904	0.916	0.162	.000*	.000*
There is sufficient information about green features in green products.	Chi-square	2.52	18.842	5.341	12.576	11.534
	df	4	16	8	8	12
	Sig.	0.641	0.277	0.721	0.127	0.484
The media provides sufficient information about green products.	Chi-square	4.724	18.745	13.441	14.216	9.25
	df	4	16	8	8	12
	Sig.	0.317	0.282	0.098	0.076	0.681
Consumers purchase green products because they have adequate knowledge about it.	Chi-square	4.092	9	7.501	38.066	15.966
	df	4	16	8	8	12
	Sig.	0.394	0.913	0.484	.000*	0.193
The information provided on the green product packaging is easy to understand and apply.	Chi-square	2.25	7.708	3.157	21.226	10.201
	df	4	16	8	8	12
	Sig.	0.69	0.957	0.924	.007*	0.598
The product will penetrate the market more if information is provided in indigenous languages	Chi-square	0.903	13.951	17.484	26.44	17.779
	df	4	16	8	8	12
	Sig.	0.924	0.602	.025*	.001*	0.123
Consumers purchase green products as they are certain of the benefits of green products.	Chi-square	1.502	10.851	11.881	17.734	20.275
	df	3	12	6	6	9
	Sig.	0.682	0.542	0.065	.007*	.016*
I am certain that when I buy a green product will be of a good quality.	Chi-square	2.481	18.641	5.397	19.583	19.374
	df	4	16	8	8	12
	Sig.	0.648	0.288	0.714	.012*	0.08

I am sure that green products will make a difference to the environment.	Chi-square	2.749	15.567	8.829	18.992	20.217
	df	4	16	8	8	12
	Sig.	0.601	0.484	0.357	.015*	0.063
I am certain that majority of the population will adopt the usage of green products in the future	Chi-square	6.228	13.177	6.976	14.066	12.665
	df	4	16	8	8	12
	Sig.	0.183	0.66	0.539	0.08	0.394
Using green products will provide a better future for generations to come.	Chi-square	0.779	9.621	17.795	18.388	30.995
	df	4	16	8	8	12
	Sig.	0.941	0.886	.023*	.018*	.002*

Addendum 8: Correlations

Note: For Table 8, variables are colour-coded to highlight correlation. Only significant linear correlations above *r*=0.4 at the significant level of 0.01 were considered.

Table 8: Spearman correlations test showing linear relationship between variables

	Awareness of green product -variables	Spearman correlation coefficient (r)
1	I am aware of where I can buy green products. I am aware of what a green product is.	0.764
2	I am aware of the benefits of using green products. I am aware of what a green product is.	0.721
3	I am aware of the benefits of using green products. I am aware of where I can buy green products.	0.753
4	Manufacturers of green products make consumers aware of the green features of their products. I am aware of what a green product is.	0.525
5	Manufacturers of green products make consumers aware of the green features of their products. I am aware of where I can buy green products.	0.570
6	Manufacturers of green products make consumers aware of the green features of their products. I am aware of the benefits of using green products.	0.656
7	Retailers stocking green products make consumers aware of the green features of the products they stock. I am aware of what a green product is.	0.445
8	Retailers stocking green products make consumers aware of the green features of the products they stock. I am aware of where I can buy green products.	0.508
9	Retailers stocking green products make consumers aware of the green features of the products they stock. I am aware of the benefits of using green products.	0.528
10	Retailers stocking green products make consumers aware of the green features of the products they stock. Manufacturers of green products make consumers aware of the green features of their products.	0.585
11	Green products are healthy products. I am aware of what a green product is.	0.487
12	Green products are healthy products. I am aware of where I can buy green products.	0.510

13	Green products are healthy products. I am aware of the benefits of using green products.	0.532
14	Green products are healthy products. Manufacturers of green products make consumers aware of the green features of their products.	0.497
15	Green products are healthy products. Retailers stocking green products make consumers aware of the green features of the products they stock.	0.401
21	The packaging of green products is recyclable. I am aware of what a green product is.	0.494
22	The packaging of green products is recyclable. I am aware of where I can buy green products.	0.562
23	The packaging of green products is recyclable. I am aware of the benefits of using green products.	0.506
24	The packaging of green products is recyclable. Manufacturers of green products make consumers aware of the green features of their products.	0.473
25	The packaging of green products is recyclable. Green products are healthy products.	0.517
26	Green products are normally easy to use/make/prepare. I am aware of where I can buy green products.	0.498
27	Green products are normally easy to use/make/prepare. I am aware of the benefits of using green products.	0.424
28	Green products are normally easy to use/make/prepare. Manufacturers of green products make consumers aware of the green features of their products.	0.488
29	Green products are normally easy to use/make/prepare. Retailers stocking green products make consumers aware of the green features of the products they stock.	0.402
30	Green products are normally easy to use/make/prepare. Green products are healthy products.	0.477
31	Green products are normally easy to use/make/prepare. The packaging of green products is recyclable.	0.570
32	Green products are normally of a high quality. I am aware of what a green product is.	0.492
33	Green products are normally of a high quality. I am aware of where I can buy green products.	0.487
34	Green products are normally of a high quality. I am aware of the benefits of using green products.	0.493
35	Green products are normally of a high quality. Manufacturers of green products make consumers aware of the green features of their products.	0.442
36	Green products are normally of a high quality. Retailers stocking green products make consumers aware of the green features of the products they stock.	0.432
37	Green products are normally of a high quality. Green products are healthy products.	0.539
38	Green products are normally of a high quality. The packaging of green products is recyclable.	0.515
39	Green products are normally of a high quality. Green products are normally easy to use/make/prepare.	0.578
40	Green products are of a better quality compared to products in the same category that are not considered green. I am aware of what a green product is.	0.417
41	Green products are of a better quality compared to products in the same category that are not considered green. I am aware of where I can buy green products.	0.452

42	Green products are of a better quality compared to products in the same category that are not considered green. I am aware of the benefits of using green products.	0.486
43	Green products are of a better quality compared to products in the same category that are not considered green. Manufacturers of green products make consumers aware of the green features of their products.	0.412
44	Green products are of a better quality compared to products in the same category that are not considered green. Retailers stocking green products make consumers aware of the green features of the products they stock.	0.439
45	Green products are of a better quality compared to products in the same category that are not considered green. Green products are healthy products.	0.507
46	Green products are of a better quality compared to products in the same category that are not considered green. The packaging of green products is recyclable.	0.505
47	Green products are of a better quality compared to products in the same category that are not considered green. Green products are normally easy to use/make/prepare.	0.456
48	Green products are of a better quality compared to products in the same category that are not considered green. Green products are normally of a high quality.	0.678
49	The price of the product is commensurate with the quality promised. Manufacturers of green products make consumers aware of the green features of their products.	0.422
50	The price of the product is commensurate with the quality promised. Retailers stocking green products make consumers aware of the green features of the products they stock.	0.461
51	The price of the product is commensurate with the quality promised. Green products are normally of a high quality.	0.434
52	The price of the product is commensurate with the quality promised. Green products are of a better quality compared to products in the same category that are not considered green.	0.509
53	When compared with other similar products, the price of green products are fair. Green products are normally easy to use/make/prepare.	0.448
54	When compared with other similar products, the price of green products are fair. Green products are normally of a high quality.	0.519
55	When compared with other similar products, the price of green products are fair. Green products are of a better quality compared to products in the same category that are not considered green.	0.526
56	When compared with other similar products, the price of green products are fair. The price of the product is commensurate with the quality promised.	0.409
57	Green products are priced in a way that makes them unaffordable to low income earners. Green products are normally of a high quality.	0.409
58	The price difference between green products and non-green products indicates value for money. I am aware of where I can buy green products.	0.440
59	The price difference between green products and non-green products indicates value for money. I am aware of the benefits of using green products.	0.406
60	The price difference between green products and non-green products indicates value for money. Retailers stocking green products make consumers aware of the green features of the products they stock.	0.449

61	The price difference between green products and non-green products indicates value for money. The packaging of green products is recyclable.	0.404
62	The price difference between green products and non-green products indicates value for money. The price of the product is commensurate with the quality promised.	0.443
63	The price difference between green products and non-green products indicates value for money. Green products are priced in a way that makes them unaffordable to low income earners.	0.672
64	I feel I am contributing to the development of an eco-friendly environment when I buy green products. I am aware of what a green product is.	0.409
65	I feel I am contributing to the development of an eco-friendly environment when I buy green products. I am aware of the benefits of using green products.	0.467
66	I feel I am contributing to the development of an eco-friendly environment when I buy green products. The packaging of green products is recyclable.	0.452
67	There is sufficient information about green features in green products. I am aware of where I can buy green products.	0.407
68	There is sufficient information about green features in green products. I am aware of the benefits of using green products.	0.443
69	There is sufficient information about green features in green products. The packaging of green products is recyclable.	0.442
70	There is sufficient information about green features in green products. Green products are normally easy to use/make/prepare.	0.429
71	There is sufficient information about green features in green products. The price of the product is commensurate with the quality promised.	0.450
72	There is sufficient information about green features in green products. When compared with other similar products, the price of green products are fair.	0.418
73	There is sufficient information about green features in green products. The price difference between green products and non-green products indicates value for money.	0.403
74	The media provides sufficient information about green products. I am aware of where I can buy green products.	0.420
75	The media provides sufficient information about green products. Green products are normally easy to use/make/prepare.	0.466
76	The media provides sufficient information about green products. The price of the product is commensurate with the quality promised.	0.406
77	The media provides sufficient information about green products. There is sufficient information about green features in green products.	0.595
78	Consumers purchase green products because they have adequate knowledge about it. Green products are normally of a high quality.	0.449
79	Consumers purchase green products because they have adequate knowledge about it. When compared with other similar products, the price of green products are fair.	0.416
80	Consumers purchase green products because they have adequate knowledge about it. The media provides sufficient information about green products.	0.515
81	The information provided on the green product packaging is easy to understand and apply. I am aware of the benefits of using green products.	0.404

82	The information provided on the green product packaging is easy to understand and apply. Green products are normally easy to use/make/prepare.	0.412
83	The information provided on the green product packaging is easy to understand and apply. Green products are normally of a high quality.	0.462
84	The information provided on the green product packaging is easy to understand and apply. Green products are priced in a way that makes them unaffordable to low income earners.	0.410
85	The information provided on the green product packaging is easy to understand and apply. The price difference between green products and non-green products indicates value for money.	0.499
86	The information provided on the green product packaging is easy to understand and apply. The media provides sufficient information about green products.	0.422
87	The information provided on the green product packaging is easy to understand and apply. Consumers purchase green products because they have adequate knowledge about it.	0.585
88	The product will penetrate the market more if information is provided in indigenous languages. Green products are healthy products	0.402
89	The product will penetrate the market more if information is provided in indigenous languages. The information provided on the green product packaging is easy to understand and apply.	0.483
90	I am certain that when I buy a green product will be of a good quality. I am aware of where I can buy green products.	0.427
91	I am certain that when I buy a green product will be of a good quality. Green products are normally easy to use/make/prepare.	0.454
92	I am certain that when I buy a green product will be of a good quality. Green products are normally of a high quality.	0.485
93	I am certain that when I buy a green product will be of a good quality. Green products are of a better quality compared to products in the same category that are not considered green.	0.440
94	I am certain that when I buy a green product will be of a good quality. When compared with other similar products, the price of green products are fair.	0.516
95	I am certain that when I buy a green product will be of a good quality. There is sufficient information about green features in green products.	0.429
96	I am certain that when I buy a green product will be of a good quality. Consumers purchase green products because they have adequate knowledge about it.	0.456
97	I am certain that when I buy a green product will be of a good quality. The information provided on the green product packaging is easy to understand and apply.	0.404
98	I am certain that when I buy a green product will be of a good quality. Consumers purchase green products as they are certain of the benefits of green products.	0.509
99	I am sure that green products will make a difference to the environment. I am aware of what a green product is.	0.463
100	I am sure that green products will make a difference to the environment. I am aware of where I can buy green products.	0.408
101	I am sure that green products will make a difference to the environment. I am aware of the benefits of using green products.	0.464
102	I am sure that green products will make a difference to the environment. Green products are healthy products.	0.505

103	I am sure that green products will make a difference to the environment. The packaging of green products is recyclable.	0.479
104	I am sure that green products will make a difference to the environment. Green products are normally of a high quality.	0.463
105	I am sure that green products will make a difference to the environment. Green products are of a better quality compared to products in the same category that are not considered green.	0.452
106	I am sure that green products will make a difference to the environment. When compared with other similar products, the price of green products are fair.	0.412
107	I am sure that green products will make a difference to the environment. I feel I am contributing to the development of an eco-friendly environment when I buy green products.	0.432
108	I am sure that green products will make a difference to the environment. The product will penetrate the market more if information is provided in indigenous languages.	0.437
109	I am sure that green products will make a difference to the environment. Consumers purchase green products as they are certain of the benefits of green products.	0.461
110	I am sure that green products will make a difference to the environment. I am certain that when I buy a green product will be of a good quality.	0.483
111	I am certain that majority of the population will adopt the usage of green products in the future. Green products are healthy products.	0.435
112	I am certain that majority of the population will adopt the usage of green products in the future. The packaging of green products is recyclable.	0.514
113	I am certain that majority of the population will adopt the usage of green products in the future. Green products are normally easy to use/make/prepare.	0.456
114	I am certain that majority of the population will adopt the usage of green products in the future. Green products are normally of a high quality.	0.462
115	I am certain that majority of the population will adopt the usage of green products in the future. Green products are of a better quality compared to products in the same category that are not considered green.	0.439
116	I am certain that majority of the population will adopt the usage of green products in the future. Consumers purchase green products because they have adequate knowledge about it.	0.516
117	I am certain that majority of the population will adopt the usage of green products in the future. The information provided on the green product packaging is easy to understand and apply.	0.449
118	I am certain that majority of the population will adopt the usage of green products in the future. The product will penetrate the market more if information is provided in indigenous languages.	0.427
119	I am certain that majority of the population will adopt the usage of green products in the future. Consumers purchase green products as they are certain of the benefits of green products.	0.493
120	I am certain that majority of the population will adopt the usage of green products in the future. I am certain that when I buy a green product will be of a good quality.	0.416
121	I am certain that majority of the population will adopt the usage of green products in the future. I am sure that green products will make a difference to the environment.	0.547
122	Using green products will provide a better future for generations to come. I am aware of the benefits of using green products.	0.433

123	Using green products will provide a better future for generations to come. Green products are healthy products.	0.475
124	Using green products will provide a better future for generations to come. The packaging of green products is recyclable.	0.449
125	Using green products will provide a better future for generations to come. I feel I am contributing to the development of an eco-friendly environment when I buy green products.	0.520
126	Using green products will provide a better future for generations to come. The information provided on the green product packaging is easy to understand and apply.	0.430
127	Using green products will provide a better future for generations to come. The product will penetrate the market more if information is provided in indigenous languages.	0.525
128	Using green products will provide a better future for generations to come. Consumers purchase green products as they are certain of the benefits of green products.	0.487
129	Using green products will provide a better future for generations to come. I am sure that green products will make a difference to the environment.	0.613
130	Using green products will provide a better future for generations to come. I am certain that majority of the population will adopt the usage of green products in the future.	0.654