

**FACTORS INFLUENCING THE DEMAND AND CONSUMPTION PATTERNS OF
GREEN PRODUCTS (FMCGS) IN THE GREATER DURBAN AREA**

**Submitted in fulfilment of the requirements of the degree of Master of
Management Sciences in Marketing in the Faculty of Management Sciences at
the Durban University of Technology**

OBED FREEDOM CHAUKE

SEPTEMBER 2019

SUPERVISOR:

DATE

..

28/08/2019
.....

Dr. R. H. HAWKINS-MOFOKENG

PhD (UNIBO: Italy): Agricultural, Environmental and Food Sciences and Technology

MTech (DUT: South Africa): Marketing Management

ABSTRACT

The study focuses on analysing factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area (Glenwood, Greyville and Durban Central). Over the years green marketing has been an evolving topic, yet the market share of green products is significantly low. Green products are part of holistic green marketing and the progression of this type of marketing has also evolved to the point where almost every consumer is aware of it. One of the reasons for such progression was the hope that green marketing might be the answer to combat the problems caused by the Fast-Moving Consumer Goods (FMCGs) sector. However, the awareness of green marketing does not translate into a rise in the consumption of green products. Therefore, the study seeks to explore this low market share and the growth potential of these products in the (FMCGs) industry.

The study employed a quantitative, non-probability and random sampling method to uncover consumers' attitudes towards the consumption of green products. The data was collected through the administration of questionnaires and analysed using the IBM SPSS (Version 25). The sample size was 384 shoppers from shopping malls in Glenwood suburbs (Davenport Square, popular mall in the area), Greyville (Cityview, popular mall in the area) and Durban Central (The Workshop, popular mall in Durban Central) in the greater Durban area as these places have different demographics and cultural differences required for the study.

The results of the study revealed that the consumers in the greater Durban area know about green products. However, they view green products as elite products due to their high prices. This means companies venturing into green products would have to seek for ways to reduce their prices. The study also discloses that when customers have to choose between green and non-green products the price plays a critical role. The findings of the study are only restricted to the boundaries of the greater Durban area and cannot be generalised. However, the study recommends that a qualitative study be done. This will allow the consumers to answer in their own words and will help in understanding the area of study better.

DECLARATION

I, OBED FREEDOM CHAUKE, do hereby declare that this study is purely my own work except where indicated. The work has been compiled under the supervision of Dr. Raymond H. Hawkins-Mofokeng. Information acquired from other sources has been referenced accordingly.

Signature..

Date.....28/08/2019

ACKNOWLEDGEMENTS

To the one true God, the great I AM, I surrender before your Lordship. All the glory belongs to you, for without your tender mercies, I would have not completed this study.

I would like to extend my sincerest gratitude to my Supervisor, Dr. Raymond H. Hawkins-Mofokeng. Thank you so much for going beyond your supervisor duties, your encouragement, patience, understanding and guidance over the course of this study is truly appreciated. This dream seemed almost impossible but your guidance made me realise that it is possible.

My sincerest gratitude also goes to the following people and their Shopping Centres:

- Sandy Mabena from Davenport Square;
- Zola Madondo from The Workshop;
- Thelma Zietsman from City View.

Thank you very much for your hospitality during the data collection process. You have played a great role in my education.

I would like to dedicate this study to my beloved mother, Selinah Chauke. Thank you for being my prayer warrior, for the sacrifices you make for me and my family and sometimes sacrificing your happiness for ours. You are truly a super mom. I would also like to express my sincere gratitude to my siblings and my entire family. Thank you so much for your support, both financially and emotionally.

To my Enactus DUT team, thank you for making me a better person. Your passion and dedication to entrepreneurship, poverty alleviation and human progress is truly contagious. A special thanks to Mrs. Lana-Ann Brady, Enactus DUT Faculty Advisor, you are like a second mother to me. Thank you for guiding and enhancing the spirit of entrepreneurship in me. You are a godsend.

To all my friends, I would like to thank you for your friendship, your guidance and support throughout the course of the study. I do not know what I would be without you. You are truly appreciated.

TABLE OF CONTENTS

Contents	Pages
Abstract	(ii)
Declaration	(iii)
Acknowledgements	(iv)
Table of Contents	(v)
List of Figures	(xi)
List of Tables	(xi)
Glossary	(xiv)
CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.1. Introduction	1
1.2. Background of the Study	1
1.3. Research Problem	2
1.4. Research Aim	3
1.5. Research Objectives	3
1.6. Research Questions	3
1.7. Research Design	4
1.8. Target Population	4
1.9. Sampling	4
1.10. Data Collection and Analysis	5
1.11. Validity and Reliability	5
1.12. Ethical Considerations	5

1.13. Rationale of the Study	6
1.14. Delimitations of the Study	6
1.15. Limitations of the Study	6
1.16. Outline of the Study	7
1.17. Conclusion	7
CHAPTER TWO: LITERATURE REVIEW	8
2.1 Introduction	8
2.2 Green Products	10
2.3 Green Consumers and their Behaviour	13
2.4 Consumers' Environmental Concerns	15
2.5 Segmentation and Segmenting Green Consumers	18
2.5.1 Demographic Segmentation	18
2.5.2 Psychographic Segmentation	19
2.5.3 Behavioural Segmentation	20
2.6 Green Products Promotion	24
2.7 Green Certification Labelling as a Marketing Tool	26
2.8 Green Initiatives	29
2.8.1 Reducing Water Usage	29
2.8.2 Saving Paper	30
2.8.3 Reducing Carbon Emissions	30
2.8.4 Using Alternative Energy Sources for Manufacturing	31
2.8.5 Saving Trees	31
2.8.6 Elimination of Plastic Usage in Packaging	32

2.9 Summary and Conclusion	32
CHAPTER THREE: RESEARCH METHODOLOGY	34
3.1 Introduction	34
3.2 Research Design	34
3.2.1 Population	34
3.2.2 Sample Size	35
3.2.3 Sampling Method	35
3.2.4 Measuring Instrument	35
3.3 Questionnaire Design	36
3.4 Data Analysis	37
3.4.1 Descriptive Statistics	37
3.4.2 Frequencies and Percentages	37
3.4.3 Inferential Statistics	38
3.5 Validity	38
3.6 Reliability	39
3.7 Pilot Testing	39
3.8 Conclusion	39
CHAPTER FOUR	
DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS	40
4.1 Introduction	40
4.2 Descriptive Statistics as elicited from the Questionnaire	40
4.2.1 Biographical Information	40

4.2.2 Residence within Durban area	41
4.2.3 Area of Residence	41
4.2.4 Gender and Age Distribution	42
4.2.5 Level of Education	43
4.2.6 Occupational Status	44
4.2.7 Ethnicity	44
4.2.8 Monthly Income per Amount of Money Spent on Groceries	45
4.3 Reliability: Research Instrument	46
4.4 Green Products	47
4.4.1 Awareness of Green Products	48
4.4.1.1 Relationship between Biographical Information and Awareness of . Green Products	50
4.4.1.1.1 Influence of Gender and Awareness of Green Products	50
4.4.1.1.2 Influence of Age Group and Awareness of Green Products	51
4.4.1.1.3 Influence of Occupational Status and Awareness of Green Products	52
4.4.1.1.4 Influence of Level of Education and Awareness of Green Products	53
4.4.1.1.5 Influence of Ethnicity and Awareness of Green Products	54
4.4.1.1.6 Influence of Monthly Income and Awareness of Green Products	55
4.4.1.1.7 Influence of Monthly Spend on Groceries and Awareness of Green . Products	56
4.4.1.1.8 Influence of Residence and Awareness of Green Products	57
4.4.2 Perceptions of Green Products	58
4.4.2.1 Relationship between Biographical Information and Perceptions of . Green Products	59
4.4.2.1.1 Influence of Gender and Awareness of Green Products	60
4.4.2.1.2 Influence of Age Group and Perceptions of Green Products	60

4.4.2.1.3 Influence of Level of Education and Perceptions of Green Products	61
4.4.2.1.4 Influence of Occupational Status and Perceptions of Green Products	62
4.4.2.1.5 Influence of Ethnicity and Perceptions of Green Products	62
4.4.2.1.6 Influence of Monthly Income and Perceptions of Green Products	63
4.4.2.1.7 Influence of Monthly Spend on Groceries and Perceptions of Green Products	64
4.4.2.1.8 Influence of Residence and Perceptions of Green Products	65
4.4.3 Assurance of Green Products	66
4.4.3.1 Relationship between Biographical Information and Assurance of Green Products	67
4.4.3.1.1 Influence of Gender and Assurance of Green Products	68
4.4.3.1.2 Influence of Age Group and Assurance of Green Products	68
4.4.3.1.3 Influence of Level of Education and Assurance of Green Products	69
4.4.3.1.4 Influence of Occupational Status and Perceptions of Green Products	70
4.4.3.1.5 Influence of Ethnicity and Assurance of Green Products	71
4.4.3.1.6 Influence of Monthly Income and Assurance of Green Products	72
4.4.3.1.7 Influence of Monthly Money Spend on Groceries and Assurance of Green Products	72
4.4.3.1.8 Influence of Residence and Assurance of Green Products	73
4.5 The Relationship Between Awareness, Perceptions and Assurance of Green Products	74
4.6 Validating the Construct Measuring Green Products	75
4.6.1 Validating the Construct Measuring Awareness of Green Products	75
4.6.2 Validating the Construct Measuring Perceptions of Green Products	77

4.6.3 Validating the Construct Measuring Assurance of Green Products	79
4.7 Conclusion	80
CHAPTER FIVE: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS	82
5.1 Introduction	82
5.2 Outline of Study	82
5.3 Research Objectives	84
Objective 1: To evaluate the consumers' awareness of green products in the . FMCGs sector	84
Objective 2: To differentiate between green concerned individuals and green . consumers	85
Objective 3: To identify the influencers of green products' demand	85
Objective 4: To evaluate the effectiveness of certification labelling for green . product demand	88
5.4 Contributions of this Study	88
5.5. Recommendations	89
5.6 Implications for Further Research	91
5.7 Conclusion	91
BIBLIOGRAPHY:	92
List of Annexures	
Annexure 1: English Consent Letter and Questionnaire	105
Annexure 2: IsiZulu Consent Letter and Questionnaire	110
Annexure 3: Gate Keeper's Letter: Davenport Square	115

Annexure 4: Gate Keeper’s Letter: City View	116
Annexure 5: Gate Keeper’s Letter: The Workshop	117

LIST OF FIGURES	Page
Figure 2.1. Timeline of key events in green product consumerism from 1980 to 2010	12
Figure 2.2. Stages of a green product’s life cycle	13
Figure 2.3. The green consumer buying behaviour model	22
Figure 2.4. Examples of eco labels	26
Figure 2.5. Variables that drive consumer choice to purchase green products	28
Figure 4.1: Participants’ area of residence	42
Figure 4.2: Ethnicity distribution of the participants	45

LIST OF TABLES	Page
Table 2.1. The spectrum of green consumers	15
Table 2.2. Green consumer segmentation	23
Table 4.1 Residence Status	41
Table 4.2: Gender distribution by age group	43
Table 4.3: Participants’ level of education qualification	43
Table 4.4: Occupational status of the participants	44
Table 4.5: Monthly income of the participants	46
Table 4.6 Cronbach’s Alpha	47
Table 4.7: Participants’ awareness of green products	49
Table 4.8: Relationship between gender and awareness of green products	51

Table 4.9: Relationship between age group and awareness of green products	52
Table 4.10: Relationship between occupational status and awareness of green products	53
Table 4.11: Relationship between level of education and awareness of green products	54
Table 4.12: Relationship between ethnicity and awareness of green products	55
Table 4.13: Relationship between monthly income and awareness of green products	56
Table 4.14: Relationship between monthly spend on groceries and awareness of green products	57
Table 4.15: Relationship between residence and awareness of green products	58
Table 4.16: Participants' perceptions of green products	59
Table 4.17: Relationship between gender and awareness of green products	60
Table 4.18: Relationship between age group and perception of green products	61
Table 4.19: Relationship between level of education and perception of green products	61
Table 4.20: Relationship between occupational status and perception of green products	62
Table 4.21: Relationship between ethnicity and perception of green products	63
Table 4.22: Relationship between monthly income and perception of green products	64
Table 4.23: Relationship between amounts spent monthly on groceries and perceptions of green products	65

Table 4.24: Relationship between residence and perceptions of green products	65
Table 4.25: Participants' assurance of green products	67
Table 4.26: Relationship between gender and assurance of green products	68
Table 4.27: Relationship between age group and assurance of green products	69
Table 4.28: Relationship between level of education and assurance of green products	70
Table 4.29: Relationship between occupational status and assurance of green products	71
Table 4.30: Relationship between ethnicity and assurance of green products	71
Table 4.31: Relationship between monthly income and assurance of green products	72
Table 4.32: Relationship between monthly spend on groceries and assurance of green products	73
Table 4.33: Relationship between residence and perceptions of green products	74
Table 4.34 Correlation analysis of variables	75
Table 4.35: KMO and Bartlett's Test for awareness of green products	76
Table 4.36: Validating the awareness of green products	76
Table 4.37: KMO and Bartlett's Test for perceptions of green products	78
Table 4.38: Validating the perceptions of green products	78
Table 4.39: KMO and Bartlett's Test for assurance of green products	79
Table 4.40: Validating the assurance of green products	80

GLOSSARY

ANOVA test - Analysis of Variance (ANOVA) is a statistical technique that is used to check if the means of two or more groups are significantly different from each other. ANOVA checks the impact of one or more factors by comparing the means of different samples.

Bonferroni test - is a type of multiple comparison test used in statistical analysis.

Chi-Square test - a statistical method assessing the goodness of fit between a set of observed values and those expected theoretically.

Cronbach's Alpha - is a measure of internal consistency, i.e, how closely related a set of items are as a group. This is considered to be a measure of scale reliability.

Fisher Exact test - Fisher's exact test is a statistical significance test used in the analysis of contingency tables.

Green Products - products that do not harm the environment from the time of their production until they reach the ultimate consumer, even during and after usage.

Independent t-test – also called the two-sample t-test, independent-samples t-test or student's t-test, is an inferential statistical test that determines whether there is a statistically significant difference between the means in two unrelated groups.

Kaiser-Meyer-Olkin (KMO) test - is a measure of how suited your data is for Factor Analysis. The test measures sampling adequacy for each variable in the model and for the complete model.

One-Sample t-test - The one sample t-test is a statistical procedure used to determine whether a sample of observations could have been generated by a process with a specific mean.

Pearson Correlation - a Pearson correlation is a number between -1 and 1 that indicates the extent to which two variables are linearly related.

Post Hoc LSD test - a tool to identify which pairs of means are statistically different.

Principal Component Analysis (PCA) - is used to explain the variance-covariance structure of a set of variables through linear combinations. It is often used as a dimensionality-reduction technique.

Reliability Coefficient - a measure of the accuracy of a test or measuring instrument obtained by measuring the same individuals twice and computing the correlation of the two sets of measures.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

This research study focuses on the marketing factors that influence the demand and consumption pattern of green products in the greater Durban area. Green products are a result of green marketing. According to Garg (2014: 185) green marketing supports the production process and consumption of products that are not harmful to the environment. This concept also supports the product in terms of being environmentally friendly and being aligned with green policies, and essentially its green characteristics in general.

1.2 BACKGROUND OF THE STUDY

Over the past years, irresponsible consumption of non-green products has led to environmental issues, causing environmental specialists to blow the whistle and countries to realise the harm humanity has contributed to the planet through these daily consumptions. As a result, a green policy, particularly the 'polluter pays' principle, a user charge incorporated by indicating to companies that those who generate more waste will pay more, has been instigated to try and push companies towards the idea of sustainable development (Nabileyo 2009: 09). This pressured many companies globally, hence some of these companies adhered to the idea by introducing green products to erase their carbon footprint (Tai and Chuang 2014: 117).

The idea of green marketing is about protecting the planet for this generation and beyond, and teaching humanity the importance of managing resources. It is expected that by 2050 the population of the world will require about 70% more food than today (Sarmadi 2015: 01). This will require more fertile lands than people have or will have as long as they continue with irresponsible consumption of non-green products. The Fast-Moving Consumer Goods (FMCGs) industry still ranks amongst the worst polluters globally, hence, Garg (2014: 185) clarifies that green marketing supports the production process

and consumption of products that are not harmful to the environment. This concept also supports the product in terms of being environmentally friendly and being aligned with green policies.

While other studies focus on green consumerism and how it creates green consumers (Vernekar and Wadhwa 2011) and (Shar 2013), this research will focus on analysing factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area (Glenwood, Greyville and Durban Central).

There seem to be green-concerned individuals (individuals who are concerned about environmental issues), yet green products have a low market share. Therefore, this study proposes to uncover the factors that drive consumers to purchase green products (FMCGs) and the reason behind those purchases, as well as their changing consumption patterns.

1.3 RESEARCH PROBLEM

Global warming resulting from greenhouse gas emissions, climate change, biodiversity and water scarcity are manmade problems that have left humanity concerned about its contribution towards its future, forcing policy makers to instate green policies (Tai and Chuang 2014: 117). These policies are enforced mainly on companies, hence some use green marketing as a tool to challenge this concern. However, the problem is that not every concerned individual is a green consumer. Moreover, consumers, particularly those in low-income families, lack knowledge about green products and this affects the performance of such companies. Shah (2013: 51) states that the issues that developed green marketing have spread the gap between green consumerism and green concerns. This highlights the need to identify green consumers and green concerned individuals, to design strategies that target and address them accordingly.

Lekhanya (2014: 83) emphasises that when the right audience is targeted, green initiatives and campaigns become more effective. The author also mentions that previous research pointed out that in developing countries like South Africa, knowledge of green issues and conservationism is still lacking among lower socio-economic groups, hence

the paramount importance of education about green consumption has been highlighted. Bartels and Hoogendam (2011: 698) state that a lot of consumers claim to be green yet green products have only a 4% market share. This highlights the need to uncover the reasons behind this low market share.

This study will address this problem by identifying and differentiating between green concerned individuals (concerned about the environment but do not necessarily purchase green products) and green consumers (purchase green products). This study also proposes to uncover the factors that drive consumers to purchase green products and the reason behind those purchases, as well as their changing consumption patterns.

1.4 RESEARCH AIM

The aim of the study is to analyse the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area of South Africa.

1.5 RESEARCH OBJECTIVES

The objectives set for the study are as follows:

- To evaluate the consumers' awareness of green products in the FMCGs sector;
- To differentiate between green concerned individuals and green consumers;
- To identify the influencers of green products' demand; and
- To evaluate the effectiveness of certification labelling for green product demand.

1.6 RESEARCH QUESTIONS

The study answers the following questions:

- Are consumers aware of green products in the FMCGs sector?
- What is the difference between green concerned individuals and green consumers?

- What influences the demand of green products?
- Does certification labelling play a part in driving up the consumption of green products?

1.7 RESEARCH DESIGN

The study is quantitative in nature, as it ensures a high level of reliability and help in generalising the findings within the boundaries of the greater Durban area (Glenwood, Greyville and Durban Central). It is also a cross-sectional and descriptive study as it illuminates the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area.

1.8 TARGET POPULATION

Khan (2008: 01) describes population as the aggregate in which a specific sample is taken. The population of this study consists of residents of the greater Durban area above the age of 18 years who do shopping for their families at least once a month.

1.9 SAMPLING

Welman, Kuger and Mitchell (2005: 69) deemed a non-probability sampling as useful to this study as it is less complicated, and it saves time and money. Random sampling was used to target shoppers in Durban malls since there is no record of green consumers. According to Burmeister and Aitken (2012: 03) Glenwood, Greyville and Durban Central have an estimated 700 000 residents. According to the IBM SPSS Statistics 24, based on a 5% margin of error and 95% confidence level, the sample size should be 384 respondents.

1.10 DATA COLLECTION AND ANALYSIS

Kumar (2014: 01) states that a close-ended questionnaire is less expensive and respondents can answer without the researcher's help. A hard copy questionnaire derived from the objectives and literature review was used and pilot tested. The questionnaires were administered by research assistants and collected promptly after the respondent finished answering.

The data was analysed using the IBM SPSS Statistics 25 and also conducted necessary statistical tests, this was done to allow the data to be presented in tables, graphical display and summary statistics. Ultimately the researcher used the analysed data to make recommendations.

1.11 VALIDITY AND RELIABILITY

Fink (2008: 116) defines validity as an extent to which a concept, measurement or concept is well-founded and likely corresponds accurately to the real world. A pilot test was conducted and was scrutinised by an academic in the field to ensure face validity while ensuring the accuracy of the data.

Bhattacharyya (2006: 118) says reliability means a scale should be reliable to the degree that measurement made by it in constant circumstances yields the same results. This was ensured by the use of Cronbach's Alpha (internal consistency measurement).

1.12 ETHICAL CONSIDERATIONS

No participants under the age of 18 were allowed to participate in the study as they are viewed as minors and do not have the needed capacity to make decisive decisions. There was no known harm to respondents and they participated freely. Participants were given the option to withdraw their participation anytime they wished to without penalties.

1.13 RATIONALE OF THE STUDY

Green products are part of a holistic green marketing strategy, in which for environmentally cautious companies can tackle the issues of global warming, climate change and biodiversity, to name a few. It is pivotal for any business to have customers for their products, and this applies likewise to companies that have green products on their product list.

The findings of this study will contribute to marketers' understanding of the factors influencing the demand and consumption patterns of green products, and it will assess the perceptions of green products in the greater Durban area, South Africa. Companies and marketers can use the recommendations of the study to develop strategies that are tailored to the findings. It will assist marketers in eliminating negative perceptions about green products. It will also assist academics in understanding the factors influencing the demand and consumption patterns of green products in the greater Durban area. Issues such as global warming, climate change, water scarcity and biodiversity will ultimately be reduced, thus benefiting everyone.

1.14 DELIMITATIONS OF THE STUDY

The study was conducted in and limited to the greater Durban area. The study excluded consumers under the age of 18. The focus was on the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area.

1.15 LIMITATIONS OF THE STUDY

The findings of the study cannot be generalised to the whole of South Africa but relate strictly to the greater Durban area.

1.16 OUTLINE OF THE STUDY

Chapter 1 introduces the study, it includes presenting the problem statement, the intentions of the study, the limitations, the aims and objectives of the study and how the researcher intends to solve the problem.

Chapter 2 establishes the literature review, and provides an overview of the literature on the factors influencing the demand and consumption patterns of green products (FMCGs), and how it links to the basis of the research topic.

Chapter 3 explains the research methodology employed in the study. It explains the population of the study, its sampling size and sampling method, the structure of the questionnaire, how the data was analysed and ultimately explains how validity and reliability was ensured.

Chapter 4 presents a statistical analysis of the data obtained through the distribution of the questionnaires and the discussion of the results of the study.

Chapter 5 summarises the study and clearly discusses the findings, draws up conclusions and recommendations.

1.17 CONCLUSION

This chapter presented the background of the study and has introduced the research problem, objectives and also justified the importance of the study. The limitations, the research questions which the study seeks to address. The methodology adopted by the research study was also presented. Finally, the chapter presented an overview of the chapters that follows and laid the foundation of this dissertation. The following chapter provides literature based on the undertaken topic.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In the past decades, green marketing has captured the attention of both practitioners and academics in an unbelievable way. Marketing practitioners have seen the progression of green marketing particularly in the late 80s and the 90s. This was when they used to put all green consumers into one segment, until they realised that it is not just the educated consumer that purchases green products but the uneducated ones are becoming environmentally savvy as well (Ottman 2009: 01). Though such progression has been evidenced, the factors influencing such purchases are still blurry even today.

The progression of green marketing has also evolved to the point where almost every consumer is aware of green marketing and supports buying into green products (Shah 2013: 52). One of the reasons for such progression was the hope that green marketing might be the answer to combat the problems caused by the Fast-Moving Consumer Goods (FMCGs) sector. As a result, consumers are willing to purchase products that will assure them health and comfort at an affordable price (Singh 2015: 26). However, at this point in the marketing landscape, consumers may support green marketing but this does not reflect their actual purchases (Schuitema and de Groot 2015: 57). So, this chapter will seek to analyse the factors influencing the demand and consumption patterns of green products in the FMCGs sector.

Green products are essential for sustainable development and one industry that touches everyone is the FMCG. According to the report of the United Arab Emirates, Department of Economic Development (2016: 01) the FMCG is a sector that represents one of the biggest industries in the whole world and under its banner, it has products such as:

- Food (for example, Monate Chocolates);
- Beverages (for example, Khoisan Tea Organic Green Matcha);
- Personal hygiene (for example, Simply Bee);

- Household cleaning utensils (for example, Pure Simple Dishwashing Liquid).

This industry is definitely threatened by the changes in climate hence green products in this sector were introduced more than two decades ago (WWF 2016: 04).

Climate change is one of the reasons green marketing obtained support from the South African government, which later instated policies such as the 'polluter must pay principle' to try to combat the issues associated with this predicament. The polluter must pay principle is under Section 28 of the NEMA (National Environmental Management Act) which obliges anyone who causes significant pollution to the environment, to take responsibility by preventing it from occurring, recurring or continuing (De Wet 2008: 01).

With an understanding that developing countries will be greatly affected by climate change, a contingency plan has been enacted by the South African government to try to mitigate the results of climate change faced by the country (Vidal 2013: 01). This is through the opening of an Environmental House by the Department of Environmental Affairs, aimed at reducing the effects of climate change. This climate change indirectly affects the FMCGs industry, such as the depletion of power and water used to produce these products (Brand South Africa 2014: 01).

In this chapter, the academic debate on factors that influence the demand and consumption pattern of green products in the FMCGs sector is presented. This literature will be guided by the objectives of the study mentioned in the first chapter. The chapter uncovers the thorough explanations of what green products are. This chapter also focuses on green consumer behaviour. Green consumers are identified by their typical habits that allow marketers to group them in distinguishable market segments.

The chapter will also focus on consumers' environmental concerns to reveal the causes of green consumption patterns and also differentiate between green consumers and "green concerned individuals". Ultimately the literature will look at the role of media in influencing green products' consumption and the role of certification labelling in scaling up the consumption of green products.

2.2 GREEN PRODUCTS

Green products can be defined as products that have an unconventional design, require less physical resources during their lifecycle, and range from dark green products to light green products (Janssen and Jager 2002: 288). Dark green products are pro-conserving the planet and do not harm the environment in any stage of their life cycle, whereas light green products may be pro-conserving the planet but they might pollute the environment in at least one stage of their life cycle (Spors 2011: 01).

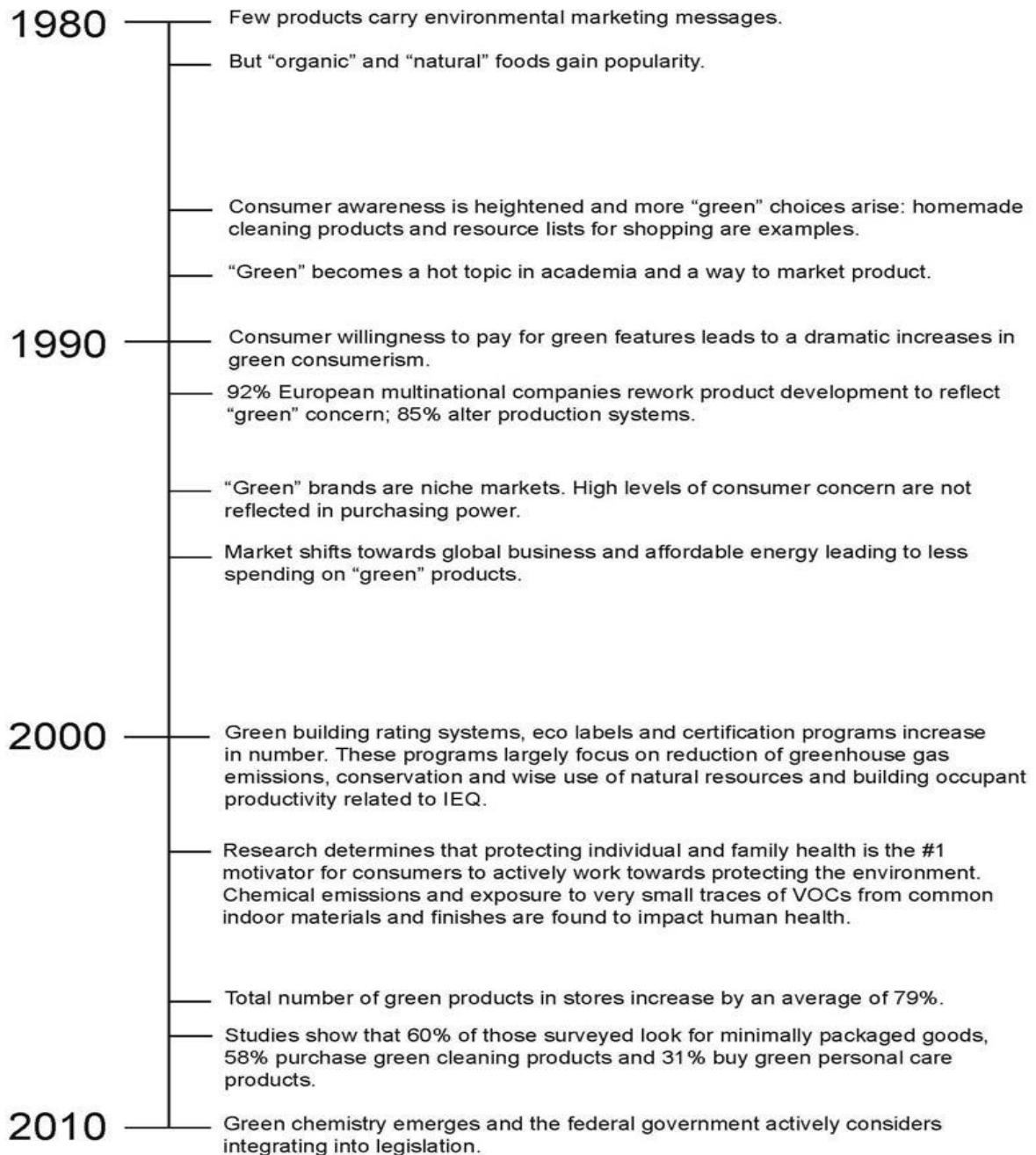
For a product to move beyond a dark green segment, it is common for that product to need advantages on its conventional attributes as compared to the competitors' products for the reimbursement of the disadvantages that it might have. This is confirmed by Olson (2013: 173) who agreed that as for greener products, the reimbursement advantage is the lower operational cost owing to the reduction of energy consumption. This reduces the greenhouse gas emission and the depletion of natural resources, because most of the energy used around the globe for home appliances and utensils is from carbon-based fuels. A greenhouse gas is any gaseous compound in the atmosphere that can absorb infrared radiation, thus trapping heat in the atmosphere (Lallanilla 2015: 01). A small energy consumption is likely to be considered a green attribute and/ or operating cost attribute when product attributes are evaluated or purchased. This resonates with iSustainable Earth (2011: 01) who considers a green product as one that has less environmental impact or has less detrimental effects to human health than the level of the traditional product. The words 'green' and 'sustainable' are used to indicate that these products are pro-conserving the planet for future generations. This disagrees with Kampfe *et al* (2017: 03) who suggested that it is not necessarily true that products made from natural materials or resources are more sustainable compared to conventional alternatives. Some products can be made from natural materials or resources but still be in the same level of sustainability with the conventional attributes.

According to Peattie (2001: 129) over the years humanity's ideas about what might constitutes green marketing have continued to evolve; this evolution has enhanced the quality of green products and has also evolved in three stages. These stages are explained as follows:

- Ecological marketing – an initiative that was narrowly focused and based its concentration on reducing humans’ dependence on particularly damaging products;
- Environmental marketing – this was a more broadly based initiative and its aim was to reduce environmental damage by tapping into green consumer demand and opportunities for competitive advantage;
- Sustainable marketing – this is a fundamental approach to markets and marketing and its focus is to meet the full environmental costs of production and consumption to create a sustainable economy.

Green marketing is still evolving. Shah (2013: 51) states that in today’s age, consumers are becoming green, knowingly or unknowingly. This is evidenced by their willingness to partake in green initiatives such as using public transport and using energy-saving light bulbs to save electricity, although this seem to be an eyewash as it does not translate to radical change in green marketing. The diagram below shows the key events of the global growth of green products in the market since the 1980s. This is highlighted in **figure 2.1** as follows:

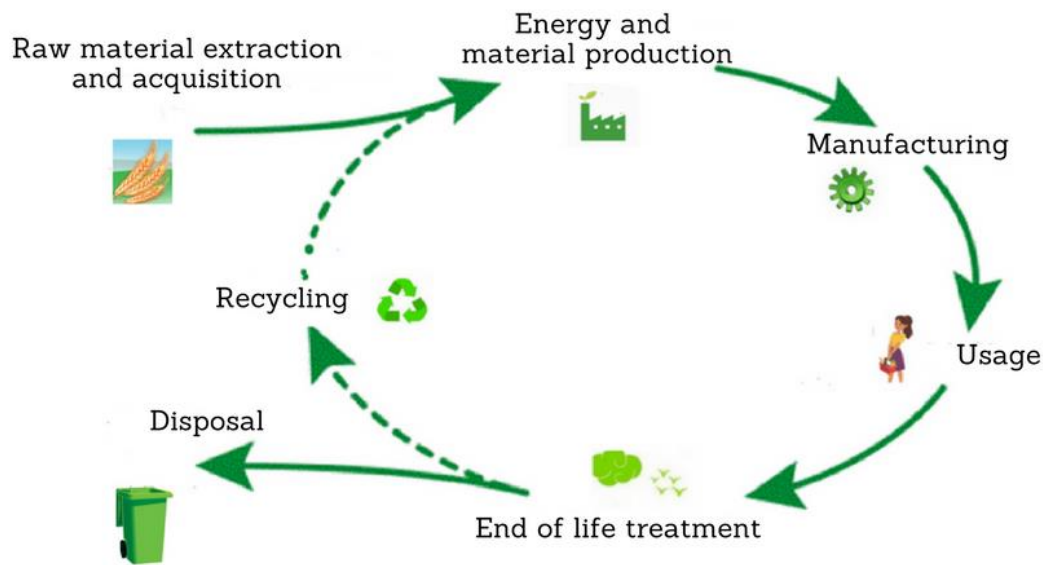
Figure 2.1. Timeline of key events in green product consumerism from 1980 to 2010



Source: (Air Quality Sciences 2010: 2)

Kampfe *et al* (2017: 04) introduce the idea of life cycle assessment. A life cycle assessment is used to set up a holistic environmental analysis of all materials, chemicals and other substances used to make a particular product or that may exist within any stage of the product's life cycle. This analysis encompasses the acquisition of raw material, the process of production, the time of usage, the reuse, recycling and disposal. Inasmuch as green products can be disposed of after use, they still have the ability to be recycled and keep the cycle going. This process is outlined in **figure 2.2** as follows:

Figure 2.2. Stages of a green product's life cycle



Source (Kampfe et al 2017: 04)

2.3 GREEN CONSUMERS AND THEIR BEHAVIOUR

According to Ryan (2006: 01) green consumers lack knowledge about environmental issues, yet they are eager to learn. However, the author acknowledges that green consumers are not all the same, but they have common beliefs and attitudes such as commitment to their green lifestyle, researching companies that have green offerings and

overstating their green behaviour. This contradicts Shah (2013: 52) who stated that a green consumer is someone who is aware of environmental issues and companies' obligations instated by policy makers, and someone who supports environmental causes to the extent of switching from one product (traditional) or supplier to another because they offer green products, even if it entails higher costs. The author further explains that today's consumers are becoming 'green conscious' rather than 'brand conscious' and many companies have realised that it is no longer enough to try to fulfil the appetite of consumers by simply offering material goods. No matter the attitude of green consumers, their knowledge and even their beliefs, understanding them is the first step to drafting the best marketing strategy that will best suit their needs.

Ginsberg and Bloom (2004: 79) argue that green marketing has not always worked on the side of marketing practitioners. This is as a result of the illusion of public opinion polls showing that consumers are likely to purchase green products over traditional products, assuming all things remain the same, but those 'other things' are not exactly the same with consumers. A typical example would be when consumers are forced to make a trade-off between product attributes or saving the environment by purchasing products that are not harmful to the environment; the environment almost never wins. This resonates with Schuitema and De Groot (2015: 57) who state that consumers are inclined to put their focus on products that have egoistic attributes first before they can focus on green product attributes. They suggest that if product attributes can fulfil the typical egoistic motives like low prices and famous brands, green product attributes, products that have no connections to cruelty or with low environmental impact, can influence consumption behaviour more than when egoistic motivations are not fulfilled. On the other hand, Ottman (2009: 01) indicates that consumers nowadays are becoming more demanding, unlike three decades ago when marketers used to mix all green consumers in one undistinguishable crowd unlike today when they realise that everyone is starting to see the importance of green marketing.

Suki (2016: 207) reports that on a research of 200 valid respondents, only 63 reported to have bought biodegradable bags when doing their shopping in the last month. In addition, Crouth (2016: 01) reports that the South African market is using plastic bags instead of

brown bags (paper bags), even after the government instated the plastic bag levy in 2003 to contest the radical consumption of plastic bags. Consumers seem to have not down sized the radical consumption of plastic bags.

Meyer (2014: 01) uses a table to further explain green consumers and their buying behaviour. Meyer also mentioned that this could be used as a green consumer segment. The table is displayed as follows:

Table 2.1. The spectrum of green consumers

Green Consumer Types	Attitude towards environmentally friendly apparel
Dark green	These consumers are very likely to seek for green products and they would be extremely bothered and complain if they do not find what they want.
Green	Very likely to seek for green products
Light green	Somewhat or moderately likely to buy green products
Pale green	These consumers do not seek green products at all.
Non-green	These consumers do not seek and they would not be bothered about buying green products.

Source (Meyer 2014: 01)

2.4 CONSUMERS' ENVIRONMENTAL CONCERNS

Given that green consumers have been identified, there are however other consumers who claim that they are concerned about environmental issues yet they struggle to translate their concerns into actual purchases (Young *et al* 2010: 22). These kinds of consumers are the reason why green marketing is not getting the momentum it deserves. Mayekar and Sankaranarayanan (2014: 1712) expressed that if consumers would demonstrate a positive attitude towards green products, companies that currently do not

have green products on their product offering would start offering them. It is believed that consumer concerns for the environment that are reflected by daily purchases can act as catalysts in converting non-green companies to green. It is also worth noting that consumers are major contributors to most of the environmental issues and hence any environmental responsibility can go a long way to mitigating the risks caused by their environmental irresponsibility. On the other hand, Kennell (2015: 01) reports that consumers who have children tend to purchase more green products, which is seen as a reflection of their concern for the planet they leave for the upcoming generations. This is as a result of having access to information that is disseminated through the media, which makes consumers more eager to take action in a quest to save/better the planet. Such initiative is evidenced by the global increase in organic food sales from US\$3.6 billion in 1997 to US\$39 billion in 2014. This increase closely correlates with the concerns and level of education from the consumers (WWF 2016: 04). Whilst environmental concerns could emerge as some of the key drivers for green consumer behaviour, research has shown that consumers do not lack cognisance of green products, but they are not willing to pay premium prices for green products. As a result, the market share of green products is affected. The results also show that consumers' pro-environmental concerns affect their green purchasing behaviour significantly (Datta 2011: 127).

Green consumers are more inclined to purchase products that have a smaller environmental footprint than non-green customers. Non-green consumers are less concerned about the effects of their consumption patterns on the environment. This type of environmental concern indicates an individual's approach to environmental problems and their reaction. This eco-friendly behaviour encompasses their recycling behaviour to green purchasing behaviour (Smith 2013: 98). In recent years, other authors argued that consumers who are environmentally concerned tend to purchase green products, however, this has now been established to be less of a variable as there are people who are concerned about the environment but do not purchase green products (Polo 2015: 06). Hence this makes it difficult for marketers to identify their green consumers.

According to Lin and Chen (2016: 1090) there are currently four motivators in green consumption, namely: To pursue health; For status; Recognition; and Followers. These are explained as follows:

- **To pursue health** - research has shown that one of the critical motivators for green consumption is the consumers' pursuit of health and safety. Everyday doctors are advising consumers to eat healthy foods and exercise well; often products that enable humanity to accomplish or maintain a healthy lifestyle are green products (Joshi and Rahman 2015: 133). Consumers driven by this motivator are not necessarily concerned about the environment, but they are concerned about their health and their safety.
- **For status** - an empirical study conducted in Austria revealed that green consumption can potentially signal high social status. This means some of the consumers who are purchasing green products are not necessarily concerned about the environment, they just want to be perceived as people of higher class. However, this kind of green conspicuous consumption behaviour tends to vary subject to one's demographics (Polo 2015: 02).
- **Eager for recognition** - According to Griskevicius and Tybur (2010: 393) it is expected that people might strive to be seen as environmentalist, or pro-social, that is, if the status-enhancing benefits of cooperation is considered. It has always been known that people across all diverse cultures have been competing to be seen as altruistic. This is evident by consumers who are purchasing green products because they want to be seen as less selfish.
- **Followers** - According to Polo (2015: 10) this kind of motivator correlates with conspicuous consumption. Conspicuous consumption is when consumers who purchase expensive products intentionally do so to display those products to the public to intentionally reveal their social status. This has a large following, and has been seen happening in some countries to promote green consumption.

2.5 SEGMENTATION AND SEGMENTING GREEN CONSUMERS

Segmentation, also referred to as market segmentation, is the division of consumer markets into groups of customers who share the same needs and wants (Levens 2012: 131). Segmentation allows marketers to look at consumers in different groups according to their needs and wants, instead of one undistinguishable market. To accomplish this, marketers often use what is called segmentation. The bases of segmentation are a group of characteristics that are used to allocate members in a specific segment (Kotler and Keller 2012: 236).

According to Chan (2000: 07) green consumers can be segmented into two major segments: light green and dark green consumers. In the empirical study conducted on 702 shoppers in Hong Kong, the author reports that dark green consumers were found to have more household income and a high level of education. The author also emphasised that these consumers have self-identity and consider themselves as green consumers, their green consumption patterns being influenced by friends and the government. Furthermore, light green consumers were found to lack access to environmentally friendly products. Contrarily, Ottman (2010:01) stated that as there are lots of green products and labels out there, it is pivotal for companies to check if their customers belong to light or dark green segments, or if they belong to the non-green segment. By doing so, it allows marketers to understand their customers' personal green interests first before they target them. Green consumers do not all like the same things, hence marketing practitioners have identified and profiled distinct groups of green consumers by examining demographics, psychographic and behavioural differences. These form bases of segmentation and are explained as follows:

2.5.1 DEMOGRAPHIC SEGMENTATION

According to Kotler and Keller (2012: 216) one reason demographic segmentation is common is because it is easy to measure. This is where the market is divided based on variables such as age, gender, family size, religion, education, nationality, income and social class.

Do Paco and Raposo (2010: 434) report on the findings of their empirical study that variables such as age, education and income are significant when selecting the segments. They also found that there is no difference in gender when it comes to purchasing green products. The authors also highlighted the importance of occupation but emphasised that this variable must be analysed with caution when dealing with FMCGs. This is inconsistent with Mayekar and Sankaranarayanan (2014: 1710) when reporting that over 50% of the respondents were men and that meant men purchase green products more than women. This also differs from the empirical study conducted by Drozdenko, Jensen and Coelho (2011: 112) who reported that their empirical study found gender as a factor for consumers' willingness to pay premium prices for green products. Women are sensitive to benefits of green products on household cleaning categories whilst men are sensitive to the benefits of green products on the maintenance side of the product categories. This resonates with Suki (2016: 212) who reports that women purchase more green products than men. Their findings also revealed that young people tend to purchase more green products than older people. Occupation also played a role in the findings of the study; 60% of the people who purchase green products were students, which means they are well informed about environmental issues.

2.5.2 PSYCHOGRAPHIC SEGMENTATION

Pride and Ferrell (2010: 170) explain psychographic segmentation as one that uses variables such as personality characteristics, lifestyles and motives to segment markets. This type of segment can either be used concurrently with other segmentation variables or can be used alone to target markets. Personality characteristics can be used when the product resembles many competing products on the market and consumers' needs are not closely related to other segmentation variables (Hausman 2016: 01). Lifestyle segmentation is concerned with how individuals spent their time, things that matter the most in their lives, occupation and level of education, whereas motives are used to understand why consumers are purchasing products (Vyncke 2002: 446). As most marketers use demographic segmentation, using psychographic segmentation can put marketers a step ahead of competition (Mintz 2017: 02). On the other hand, Verma (2017:

274) reports that psychographic works with demographics as demographics acts as a primarily criterion and psychographics as a building block in young niche markets.

Apaydin and Szczepaniak (2017: 95) state the reason most organisations focus on sociodemographic characteristics for targeting green consumers is because of the availability and relative effortlessness of applying these kinds of segmentation measures, compared to psychographic characteristics. However, one can use psychographic characteristics when surveying environmental concern or perceived consumer effectiveness to determine green segments of the market. These types of characteristics are considered better than the demographic factors in explaining the difference in green consumer behaviour. The concept of lifestyle was frequently used by marketing practitioners in the 1960s in research undertaken to further understand the phenomena of buying and consuming (Vyncke 2002: 446). These studies were concerned about people's activities, interests and opinions (do Paco, Raposo and Filho 2009: 20). As far as activities are concerned it is likely that individuals who are more closely involved in community programs and in social programs are more likely to be pro-environmental and therefore purchase green products.

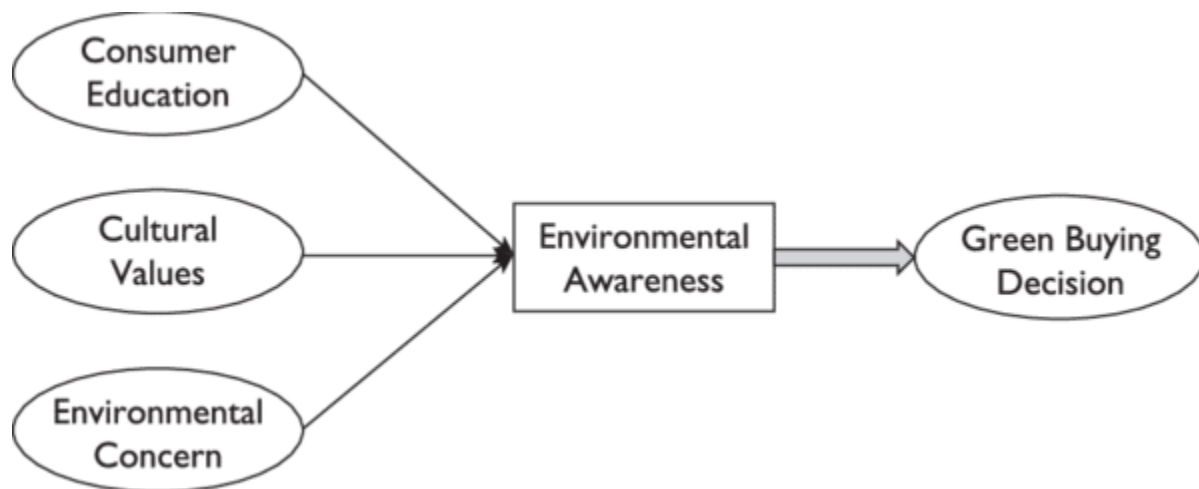
2.5.3 BEHAVIOURAL SEGMENTATION

Young *et al* (2010: 200) state that everyday consumers have to make complex decisions when purchasing products. There is always a potential for that decision to contribute to the sustainability of the environment. When consumers engage in sustainable consumption patterns they engage with one of the most difficult buying behaviours because each purchase has ethics, resource and waste implications. For example, a product that is tested on animals is considered not ethical, a product that uses scarce natural resources, harmful chemicals and has big waste implications after use is considered not sustainable. Such factors drive consumers to make a trade-off during product purchase because they believe they cannot meet all the necessary variables. According to Duczeminski (2018: 01) behavioural segmentation is the act of grouping customers according to their buying behaviour as consumers, such as their readiness to buy, their level of loyalty to a specific brand and their frequent interaction with that brand.

Behavioural segmentation is meant to gain a better understanding of the consumers. This type of segmentation digs deeper than any other type of segmentation to give marketing practitioners the factors that affect the company's bottom line: their predisposition to spend money (Levens 2012: 134). Green consumers are motivated by how the products are manufactured, they are concerned about the environmental effects and the after-use of the products (Jeevan 2017: 12). This is the reason green consumers challenge companies' green claims to validate their authenticity.

According to Dagher and Itani (2014: 189) there are three main factors that control green buying behaviour: the consumer's level of education, the consumer's cultural values and the consumer's environmental concern. These factors together tend to lead to environmental awareness. However, out of the three factors, environmental concern remains the most powerful as it makes consumers aware of environmental problems around them which ultimately enables them to partake in sustainable consumption (Joshi and Rahman 2015: 129). The consumer's level of education plays an important part too, yet this does not mean uneducated consumers are not concerned for the environment. Cultural values about conserving the planet, such as using less energy and using less water, also play a part in driving consumers to purchase green products. **Figure 2.3** below is an illustration of the above theory.

Figure 2.3. The green consumer buying behaviour model



Source (Laheri, Dangi and Vohra 2014: 153)

Young and Dhanda (2013: 332) state that because of the wider range of environmental problems, green consumers tend to prioritise their environmental concerns, making it easier for marketers to segment them into four sub-segments based on that behaviour:

- Resource conservers;
- Health fanatics;
- Animal lovers; and
- Outdoor enthusiasts.

The following table clarifies the behaviour of the four sub-segments of green consumers in a South African context:

Table 2.2. Green consumer segmentation

Resource Conservers	Health Fanatics	Animal Lovers	Outdoor Enthusiasts
Likely belong to:	Likely belong to:	Likely belong to:	Likely belong to:
Save the Vaal	CropLife SA	Wildlife and Environment Society South Africa	Mountain Backpackers Club
Wildlife and Environment Society South Africa	South African Organic Sector Organisation	Endangered Wildlife Trust	African Surfriders Foundation
Conservation South Africa	Slow Food South Africa	People for the Ethical Treatment of Animals (PETA)	Cape Union Mart Hiking Club
Likely environmental behaviour:	Likely environmental behaviour:	Likely environmental behaviour:	Likely environmental behaviour:
Conserve energy, water	Buy organic foods	Vegetarian/ vegan	Use durable, reusable bottles and bags
Recycle bottles, cans, newspaper	Buy natural cosmetics	Boycott tuna, ivory	Avoid excessive packaging
Buy compact fluorescent bulbs	Buy natural cleaning aids	Boycott products tested on animals	Buy natural/ biodegradable products for easy camping/hiking clean up

Use reusable shopping bags	Use sunscreen	Avoid fur	Purchase outdoor gear and clothing made of recycled material
Likely read or visit:	Likely read or visit:	Likely read or visit:	Likely read or visit:
The Tree App	Wellness Magazine	Pet Print Magazine	Explore Magazine
Simplegreen.co.za	Flowers.co.za	Wild Magazine	Bicycling Magazine
Treevolution.co.za	Men's/ Women's Health Magazine	African Bird Life	Wildside Magazine

Source (Ottman 2011: 30)

2.6 GREEN PRODUCTS PROMOTION

Vernekar and Wadhwa (2011: 71) report on an empirical study in which 89% of the respondents mentioned that green products promotion is one of the essential variables influencing their green buying behaviour. Media has been informing consumers about environmental issues, hence the progression of green products (Shah 2013: 52). This has prompted marketing practitioners to use creative terms such as “Bio degradable”, “environmentally friendly”, “ozone safe” and “recyclable” in green advertising (D’souza and Teghian 2005: 51). Though it might be acceptable to use these terms, some companies push it further by using broad and ambiguous statements that leave them vulnerable to dark green consumers to debate their claims. Jeevan (2017: 12) states that there are companies that adopted several environmental initiatives, yet use no green claims for advertising. Such companies highlight clear evidence that green advertising is a choice. This means companies that utilise green advertising should have goals and objectives in an attempt to assess the effectiveness of the outcomes. This opposes Leonidau *et al* (2011: 33) who argue that much of the percentage of green advertising favours sustainable development and environmental consciousness; hence, most green advertisements are purely commercial. Companies and organisations that have green

products and are cautious in their intentions project their green advertising messages in a virtuous manner, to educate a selected target audience about green consumption.

Paco, Resiasta and Reese (2014: 52) suggest that environmental claims should be employed from the designing stage of the green advertisement. This is because the aim of green advertising is to elevate the level of awareness about green consumption and other environmental issues only, unlike conventional advertising where the purpose is persuading and influencing the customer to purchase products in general. To avoid damaging the reputation of a brand or company over manufactured claims, environmental claims should be in line with regulations and policies established by the government. This agrees with Vanclay *et al* (2011: 158) who showed that when consumers are well informed beforehand, they respond well to green products. This was done through an empirical study that the authors conducted in Australia. They attracted the attention of the media based on the need to alert consumers before the eco-labelled products arrived in store. This was done with the understanding that most grocery shoppers do not like to idle while shopping; and also to avoid confusing the customers or expect them to read in-store brochures before they make purchases. Nonetheless, media interest and sales were greater than projected, with local radio and television coverage on the day the labels were put in store. Newspapers published press conferences and follow-up articles after the study. In a nutshell, the increase in sales realised and the interest of the media in this regard suggested the need for the country to reduce carbon emissions.

Wei *et al* (2014: 03) state that over the past few years, consumers adopting environmentally conscious behaviour have progressed to the digital age. Such individuals have been seen on social media platforms using the hash tags (#) to show their support for green marketing practices. Such behaviour would not affect the concept of green marketing, but rather it makes it trendier and more appealing to other consumers. Consequently, companies and organisations can exploit such trends by investing more to research green trends and capitalising on the emergence of green trends.

2.7 GREEN CERTIFICATION LABELLING AS A MARKETING TOOL

Like most marketing efforts, the role of certification labelling is to escalate the amount of product consumption (Dahlstrom 2011: 139). Green companies and those companies that want to act environmentally responsible find different ways when going to the market. As a result, different certification labels have been developed by different industries to assure the sceptical consumer. For an example, Ecocert is a certification body that does inspection of organic products, certification as well as training in organic agriculture within the jurisdiction of the Southern African region (Ecocert 2017: 01).

Addy (2012: 01) reports on a study conducted on more than 1 000 executives of companies about their views of eco labels. According to the executives, eco labels have benefits such as their ability to strengthen a brand, to address consumers' sustainability demands, and to protect companies from attacks against pressure groups. The author provided examples of eco labels around the globe, as follows:

Figure 2.4. Examples of eco labels

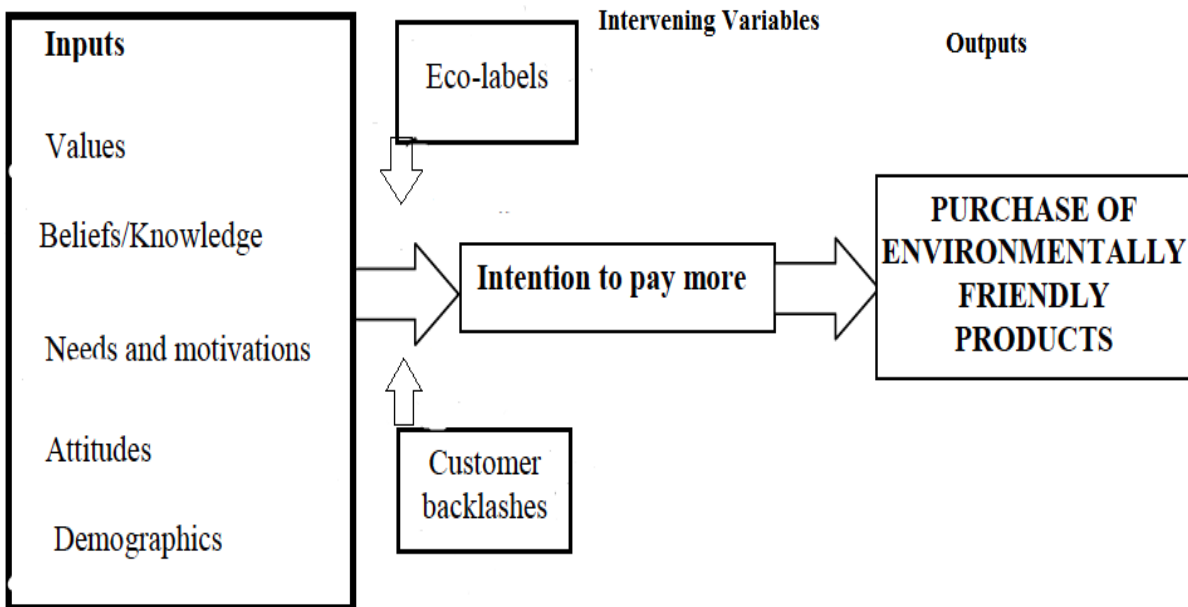


Source (Addy 2012: 01)

Rahbar and Wahid (2011: 83) state that the main idea of eco labels is to create some sort of identification for green products compared with other conventional products. Eco labels display the required information to the consumer. Therefore, it is imperative that essential information such as ingredients and the material used to make the final product be presented on the eco labels. Certification labelling has the power to influence consumption of green products, hence the importance of truthfulness and credibility being critical when making eco labels (Chkanikova and Lehner 2015: 76). This is authenticated by Datta (2011: 127) who reported on an empirical study conducted in India, which showed that a higher proportion of the respondents (78%) say their purchase intentions were widely shaped by the labelling of the products as eco-friendly products. Almost every respondent considered themselves as environmentally responsible, however they feel manufacturers have a mandate to inform them of any environmental savviness a product possesses. On the other hand, Mintz (2011: 84) suggested that marketers should stop relying on eco labels, otherwise the market share of green products will not see a dramatic increase. Mintz suggests that to achieve a better and greener world through green consumption patterns, marketers need to address a broader range of consumers than focusing on the already existing ones.

Bui (2005: 25) proposed a model that indicates how inputs and intervening variables (eco labels) influence green consumer buying intentions. This is outlined in **figure 2.5** below:

Figure 2.5. Variables that drive consumer choice to purchase green products



Source (Bui 2005: 25)

Vanclay *et al* (2011: 153) state that on their experimental research, thirty-seven (37) grocery products were labelled to indicate the carbon emission that each product embodied, and sales were then recorded over a period of three months. They use the colour Green to represent below average carbon emission, Yellow - near average carbon emission and black - above average carbon emission embodied on each grocery product. There was a small overall change in purchasing pattern, there was a slight decrease of 6% in the consumption of the products with the black label; green-labelled products showed a 4% increase after labelling. However, when green-labelled products' prices were reduced, there was a massive switch of 20% from black labelled products to green products. The authors say the findings highlight the need for labelling on products to arouse reductions on carbon emissions. However, one might argue this is an issue of pricing. Some academics have pointed out that consumers are not buying green products merely because they care about the environment. Consumers tend to participate in green initiatives for economic reasons (Bartels and Hoogendam 2011: 698).

2.8 GREEN INITIATIVES

According to Li, Nginiatedema and Chen (2017: 777) green initiatives refer to all the actions taken by companies to minimise their products' negative effects on the environment. This speaks of the entire product lifecycle, from the designing stage of the product, the acquisition of raw materials, the use up of the product to the entire disposal of the product. With ecological imbalances and global warming being the critical problems faced by today's society, it is only fitting that businesses take initiatives to combat these issues to compete with other businesses. Kumar and Anand (2012: 124) identified the following as major initiatives undertaken by companies in the FMCG sector to join the green movement:

- Reducing water usage;
- Saving paper;
- Reducing carbon emissions;
- Using alternate energy sources for manufacturing;
- Saving trees;
- Elimination of plastic usage in packaging;

These above-mentioned initiatives are explained in details as follows:

2.8.1 REDUCING WATER USAGE

South Africa is a water-scarce country. This is not due to the 2014-2016 drought, but this drought highlighted the vulnerabilities in the water security of the country and also prompted a national conversation to some extent that led water security to be included in the policy debate (Donnenfeld, Crookes and Hedden 2018: 02). Cape Town is one of the cities in South Africa that is affected by this problem. Winter (2018: 01) states that the City of Cape Town has introduced the idea of "Day Zero", which speaks of the day when taps will run out of water because the city will be forced to cut off the water supply. This is done to force residents to manage their water consumption. With this day looming,

residents have been subjected to water restrictions; however, businesses have not been subjected to such restrictions (Harrison 2018: 01). In light of all these restrictions and policies, there are companies that took it upon themselves to restrict water usage anyway. Apparently nearly half of the ingredients used to make soft drinks are water based, and this prompted Coca-Cola in the Western Cape, South Africa, to preserve water so it can keep its doors open as the issue persists. Coca-Cola identified this issue three years ago, prompting the need to treat wastewater as well as implementing the use of ground water (eNCA 2018: 01).

2.8.2 SAVING PAPER

According to Wither (2017: 01) many companies use print documents that do not really need printing; consequently a lot of trees and ink could be saved by going electronic. Going electronic saves money for the company whilst projecting a positive image towards the environment. In South African, some Mr. Price stores do not print receipts but instead they send them to the customer's email address. The Mr Price Group Limited (2017: 47) elaborated that in all their chains an option of an electronic receipt has been installed, which means now either customers have the option to get a printed receipt or Mr. Price emails the receipt to the customer. The company says it has saved over a thousand kilometres (1 000 km) of paper since the initiation of this strategy.

2.8.3 REDUCING CARBON EMISSIONS

Lallanilla (2015: 01) states that carbon emission means the release of any gaseous compounds that can hold infrared radiation in the atmosphere; these gases ultimately trap heat in the atmosphere, thus causing climate change. Some companies make this problem their responsibility as they sort ways to solve or reduce it. According to Brand South Africa (2012: 01) the Johannesburg Stock Exchange's 100 listed companies have reduced their greenhouse gas emissions, yet the country's direct greenhouse gas emissions is still dominated by carbon intensive companies with a carbon dioxide level that is equivalent to 61.4 million tons. On the other hand, Kings (2013: 01) argues that

South African companies are not doing enough to mitigate the effects of climate change. The FMCGs are not immune to this as they are part of the problem.

2.8.4 USING ALTERNATIVE ENERGY SOURCES FOR MANUFACTURING

According to Smit (2011: 01) coal is a non-renewable substance, hence producing electricity from it is not good for the environment as it contributes enormously to the effects of climate change. In a country like South Africa that has one of the highest solar irradiation levels in the world, producing electricity using solar power should be more attractive than the use of coal. Luckily, some companies believe in investing their money and time to devise ways to reduce their carbon footprint. This was confirmed by RCL Foods (2016: 35) when mentioning their use of bagasse, a residual by-product of sugar production, to make electricity that powers both their mills in Komatipoort and Malelane in the Mpumalanga Province. Companies such as RCL Foods are paramount in the development of green marketing.

2.8.5 SAVING TREES

According to McPherson, Nowak and Rowntree (1994: 1) trees are important as they remove tons of air pollution; provide air cleansing worth billions of rands and sequester hundreds of tons of carbon per year. These trees are also used as an energy alternative in substitution of coal for heating and cooking in some parts of South Africa. According to Greenpop (2018: 01) they (Greenpop) partnered with passionate individuals and organisations in Cape Town to restore biodiversity by planting 15 288 trees that impact the lives of Cape Town residents. Greenpop believes in a world where humanity and nature thrive together. This Cape Town Urban Greening Program was started after the company realised that, as in many countries around the globe, urban tree cover tends to be the maker of socio-economic inequality. Sometimes the simplest things, such as planting a tree that in turn allows for many things to be produced and sequesters tons of carbon each year, better the world.

2.8.6 ELIMINATION OF PLASTIC USAGE IN PACKAGING

According to Alam, Billah and Yanjie (2018: 121) the main environmental concerns of plastic bag usage are the release of heavy metal and chlorine during its service life and after the disposal of the bag. Global plastic production has increased annually and the vast majority of these plastics are used in packaging. This has allowed the quantities of plastics that are being discarded to increase over the years, thus polluting the environment (Luijsterburg and Goossens 2014: 88). This statement is supported by Smith (2004: 1) when reporting that plastic bags have emerged as one of the most consumed and effective products worldwide. Such popularity is because of plastic being functional, lightweight, strong, cheap, and viewed as a hygienic way of transporting.

Alfreds (2018: 01) reports that three (3) South African supermarkets, namely Pick n' Pay, Spar and Woolworths, have embarked on a journey to eliminate single-use plastics in their stores. The companies that started their green initiatives in different years have stressed that in as much as they are excited about this initiative, customers need to be educated about the importance of such initiatives for the sustainability of our planet. South Africa still has a long way to go in order to eliminate its use of plastic for packaging.

2.9 SUMMARY AND CONCLUSION

The literature has established that pro-environmental concerns would drastically affect the buying behaviour of green products. The literature also revealed that consumers are starting to see the importance of green marketing and they are concerned for the environment, yet some consumers are still struggling to translate those concerns into actual green products purchases. Consumer responsibility is needed more than ever, as they are the main contributors to global warming. A clear and structured method of segmenting green consumers to enable marketers to identify their consumers' differences was also provided. The media has long been one of the major influencers of green consumption, dating from the early eighties ('80s) when green marketing first emerged as ecological marketing. Media was there as one of the key influencers, as it is today.

The literature also highlighted the importance of certification labelling in influencing consumption patterns of green products. The literature however, did not thoroughly identify the “green concerned individuals”. Many green concerned people have the potential to become green consumers, but only if marketers can find a way to exploit those concerns.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, the methodology used to collect and interpret the data will be described. The information gathered in the previous chapter (literature review) played a significant role in the designing of the methodology, and the development of the questionnaires.

The purpose of the study is to analyse the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area (Glenwood, Greyville and Durban Central).

3.2 RESEARCH DESIGN

Wiid and Diggines (2009: 54) explain research design as the ultimate plan that shows how the required data will be collected and analysed to find the needed information. This study is a quantitative, non-probability and descriptive study as it illuminates and helps in analysing the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area. According to Houser (2008: 192) a descriptive study is the kind of research that aims to ascertain the where and what of the particular subject that is being studied. In this research study, the descriptive part is ascertaining the factors influencing the demand and consumption pattern of green products (FMCGs) in the greater Durban area.

3.2.1 POPULATION

Defining the target population is an important step when designing the research. Population can be any object being studied, this object can be in a form of organisations, products, events and people (Welman, Kruger and Mitchell, 2005: 46). On the other hand, Khan (2008: 01) describes population as the total in which a specific sample is taken. The

population of this study is the residents of the greater Durban area, who are above the age of 18 and do shopping for themselves and their families at least once a month.

3.2.2 SAMPLE SIZE

A sample is a segment of a population that is chosen by a researcher to represent a whole population. A sample is used by most researchers to draw conclusions about a large group of population being studied (Kotler and Armstrong, 2010: 139). According to Burmeister and Aitken (2012: 03) Glenwood, Greyville and Durban Central have an estimate of 700 000 residents and according to the IBM SPSS Statistics 24, based on a 5% margin of error and 95% confidence level, the sample size should be 384 respondents. The responses of these participants will be used to draw up conclusions within the geographic region of the study.

3.2.3 SAMPLING METHOD

The advantage of non-probability sampling is that it is less complicated and saves time and is economical in terms of financial constraints (Welman, Kruger and Mitchell, 2005: 69). This means non-probability sampling can be done at any time with any available respondents around the specifics of the study. The sampling method was employed for this study as there is no record of green consumers in the greater Durban area. Mackey and Gass (2016: 175) state that convenience sampling is part of a non-probability sampling where the researcher selects the respondents who happen to be available for the study. Therefore, a convenience sampling technique was employed for this study.

3.2.4 MEASURING INSTRUMENT

The study used questionnaire surveys derived from the information obtained from the literature review as the measuring instrument. Kumar (2014: 01) highlights that a questionnaire is a list of questions in which answers are recorded by the respondents, and has the following advantages:

- It is less expensive as you do not interview the respondents, which saves time and human resources.
- There is no face-to-face interaction with the researcher, and this ensures anonymity to the respondent.

The questions were close ended and a five-point Likert scale was also used to represent 'strongly disagree' to 'strongly agree'. With the questionnaire developed, the researcher conducted a pilot test with 10 respondents to record the time and make necessary corrections before the actual research was conducted. Finally, necessary corrections were made and the questionnaires were distributed to the respondents.

3.3 QUESTIONNAIRE DESIGN

The questionnaire started with a salutation, followed by the introduction of the researcher, followed by a brief introduction and explanation of what the research study entailed. The questions on the questionnaire are guided by the objectives of the study. The following are sections found in the questionnaire:

Section one: this section identifies the socio-demographics of the respondents. As this research was in no name bases, confidentiality was ensured.

Section two: this section uncovers the respondents' awareness of environmental issues that brought about the research problem of the study. This section is titled: general knowledge of environmental issues. The majority of the questions in this section are Likert scale questions, where the respondent chooses from a range of five questions from 'strongly disagree' to 'strongly agree' and there are no open ended questions.

Section three: this section looks at the respondents' behaviour in purchasing green products, the factors that drive them to purchasing green products and also the factors that make them not purchase green products.

In this questionnaire, closed ended questions and LIKERT scale were used because it saves time for the respondents and the answers of different respondents are easier to compare.

3.4 DATA ANALYSIS

In this stage, the analysis and interpretations are done to draw up conclusions from the data collected. Ekka (2014: 14) claims that data analysis takes a lot of closely related procedures such as the establishment of categories, applying all these categories into the data by use of coding, tabulations and ultimately drawing up the statistical inferences. IBM SPSS Statistics 24 offers a user interface that makes it quite easy and intuitive for all kinds of users. Therefore, the data collected was interpreted using the IBM SPSS Statistics 24 for Windows. This reflected the data in graphical formats. Frequency tables were also employed to contribute to the efficiency and accuracy of processing the data.

3.4.1 DESCRIPTIVE STATISTICS

Descriptive statistics is used to summarise the nature of the responses obtained from the data collection. Khan (2008: 133) suggests that when the universe and chosen population has been studied and the data collected, a decision can be reached by using methods of descriptive statistics. According to Armstrong and Kotler (2006: 103) the objective of descriptive research is to explain or describe things, such as a product's potential on the market or the attitudes and the demographics of consumers who purchase such a product or service. The use of descriptive research in the study was used to highlight the demographics of the green products' consumers and also to verify their attitudes as mentioned by previous studies.

3.4.2 FREQUENCIES AND PERCENTAGES

According to McGivern (2006: 463) a frequency count is the number of times a certain value appears in the dataset and the number of respondents who give the same answer to the same question. Subsequently, the frequency distribution shows how frequent each response occurs. Percentages were used to simplify the data in a numerical range that can be interpreted in a standard form that can be compared. Graphs and tables were used in this study to visualise the results.

3.4.3 INFERENCEAL STATISTICS

Mangal and Mangal (2013: 606) explain that inferential statistics helps the researcher in testing the hypothesis set out from the beginning of the study before data collection by using statistical tests such as the 'T' test, the Chi-square test and other non-parametric tests. This study uses the Chi-square test to the contingency coefficient to determine the strength of association between variables.

3.5 VALIDITY

Fink (2008: 116) defines validity as an extent to which a concept, measurement or concept is well-founded and likely corresponds accurately to the real world. The most common framework of validity is literature as it highlights what is happening in the real world around the specified topic of study. The questionnaires were developed from the literature reviewed in Chapter Two (2), thus ensuring validity. The following methods also ensured validity:

- *Face validity* - this is the extent to which the test is perceived as measuring what it intends to measure, it talks about the relevance and clarity of the questions to the respondents (McGivern (2006: 463). This was ensured by the conducted pilot test. Necessary corrections were made before the actual research was conducted.
- *Content validity* - refers to how well a study measures the behaviour of what is intended (Kumar (2014: 01). This was ensured by making sure that the majority of the questions asked were derived from the literature established above.

3.6 RELIABILITY

According to Bhattacharyya (2006: 118) reliability means a scale should be reliable to the degree that measurement made by it in constant circumstances yields the same results. In other words, this means answers in a good survey should not differ just because respondents have different opinions.

3.7 PILOT TESTING

Singh (2007: 72) states that pilot testing is considered one of the most important steps in survey research. It is critical for identifying errors on the questionnaire and also ideal for removing ambiguities and other sources of bias. It also highlights some problems that might have been encountered by the respondents while trying to answer the questions.

The type of pilot testing that was used for this study was pre-field technique: self-administered questionnaires were conducted in a focus group in the hope that the group would provide insightful information that would have been less accessible without the group.

3.8 CONCLUSION

This chapter has outlined the methodological framework used to collect the required data. The methodology used has also been justified. The findings of the empirical study will be explained in the following chapter, together with the graphical illustrations.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This chapter presents data obtained from economically active shoppers in the greater Durban area through the distribution of questionnaires. In Chapter One (1) it was anticipated that the data would be analysed using SPSS (version 24); however, due to the advancement of technology, the data collected from the responses was analysed with SPSS (version 25). This was in relation to the following objectives that were outlined in Chapter one (1):

- To evaluate the consumers' awareness of green products in the FMCGs sector;
- To differentiate between green concerned individuals and green consumers;
- To identify the influencers of green products' demand; and
- To evaluate the effectiveness of certification labelling for green product demand.

The findings are also presented in figures and table forms to clearly demonstrate the insights of the outcomes. This means different figures and tables are used to display the quantitative data gathered.

4.2 DESCRIPTIVE STATISTICS AS ELICITED FROM THE QUESTIONNAIRE

This section of the data presentation presents the biographical data of the participants.

4.2.1 Biographical Information

This section summarises the biographical characteristics of the participants.

4.2.2 Residence within Durban Area

As this study sought to analyse the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area of South Africa, knowing whether the participants are residents within the greater Durban area (Glenwood, Greyville and Durban Central) is critical. As described in **Table 4.1**, an overwhelming majority (98.2%) claim to reside in the greater Durban area while very few (1.8%) reside outside the area.

Table 4.1 Residence Status

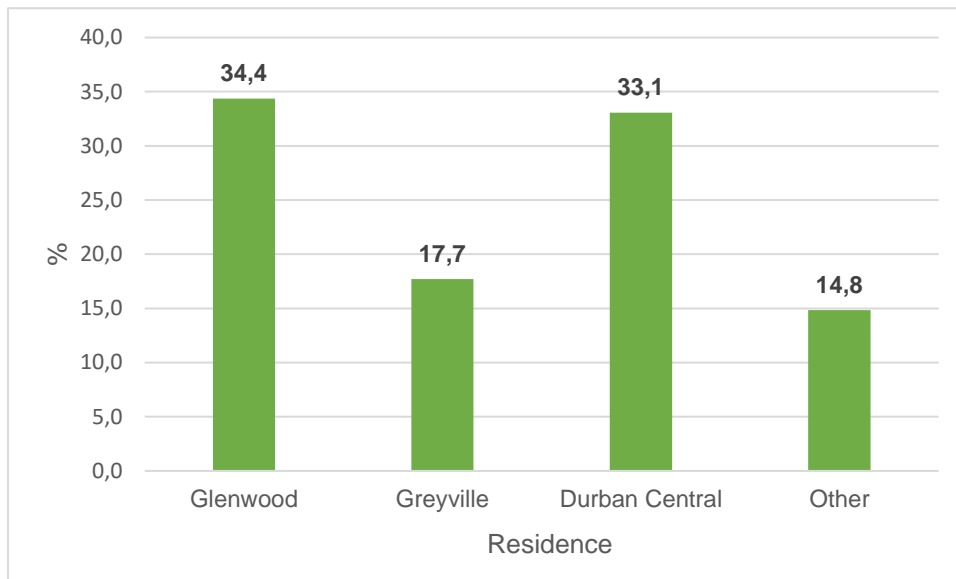
		Frequency	Percent
Residence within greater Durban	Yes	377	98.2
	No	7	1.8
	Total	384	100.0

These results imply that the data was collected from a majority of people who claim to reside in the greater Durban area.

4.2.3 Area of Residence

The participants' area of residence within the greater Durban area is given in **Figure 4.1**. It was observed that more of the participants lives in the Glenwood area (34.4%), followed by the Durban Central (33.1%), then Greyville (17.7%), and the rest in other locations within the Durban region (14.8%).

Figure 4.1: Participants' area of residence



The majority of the participants (98.2%) claim to reside in the greater Durban area, however, the results show that a small number of the participants (14.8%) reside in areas that the study does not regard as the Durban area.

4.2.4 Gender and age distribution

Table 4.2 describes the gender distribution of respondents per age group. The Fisher Exact tests failed to show significant differences in the gender with respect to age distribution of the participants ($p > 0.05$). Nevertheless, it can be gathered that females (54.9%) were more than the male (45.1%) participants. More so, and in respect to age distribution, the proportion of females (12.1%) within the age distribution of 18-19 years old were more than the males (8.1%). Similarly, females were more within the age distribution of 20-35 (36.7%) and over 50 years old (1.0%), respectively. However, male (6.8%) participants constitute the highest number within the age distribution of 36-50 years old. Overall, more (66.9%) of the participants are within the age distribution of 20-35 years old, followed by those within 18-19 years (20.1%) with the lowest representative within the age distribution of above 50 years (1.0%).

Table 4.2: Gender distribution by age group

			Age group				Total
			18-19 years	20-35 years	36-50 years	Over 50 years	
Gender	Male	Count	31	116	26	0	173
		% of Total	8.1%	30.2%	6.8%	0.0%	45.1%
	Female	Count	46	141	20	4	211
		% of Total	12.0%	36.7%	5.2%	1.0%	54.9%
Total		Count	77	257	46	4	384
		% of Total	20.1%	66.9%	12.0%	1.0%	100.0%

Fisher Exact test= 0.096

The gender distribution by age revealed that the majority of the respondents are young people. This was coincidental; however, it creates an opportunity to understand and influence this group of people as they still have a long life-span. This means that their continuous contribution to the consumption of green products will last for a long time.

4.2.5 Level of education

The level of education of the participants is shown in **Table 4.3**. It was observed that more of the participants had Diplomas (37.6%), followed by those with Matric (30.7), and Bachelor's Degree (19.3%). It can also be noted from **Table 4.3** that few (4.4%) of the participants had Post-Graduate Qualifications while only 8.6% of them were under Matric.

Table 4.3: Participants' level of education qualification

		Frequency	Percent
Level	Under matric	33	8.6
	Matriculate	118	30.7
	Diploma	139	36.2
	Bachelor's degree	74	19.3
	Post-Graduate	17	4.4
	Other	3	.8
	Total	384	100.0

This suggests that the majority of the participants are drawn from a population that could be considered educated.

4.2.6 Occupational status

Table 4.4 describes the occupational status of the participants. As shown in **Table 4.4**, a big percentage (43.5%) of participants indicated as being unemployed, while a nearly equal percentage (40.9%) are employed. In addition, it shows that self-employed individuals (10.2%) were more than those who claim to hold other forms of employment (5.5%).

Table 4.4: Occupational status of the participants

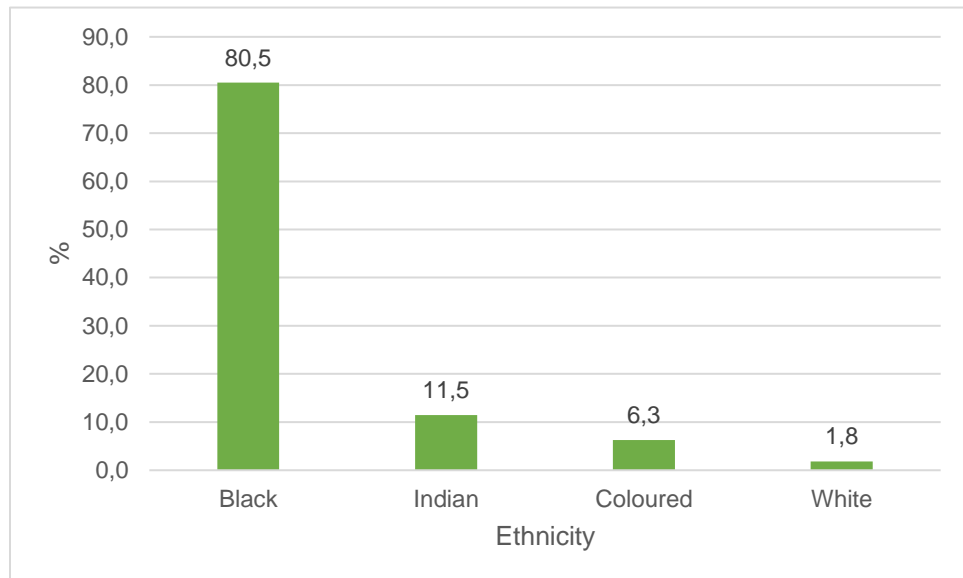
		Frequency	Percent
Status	Employed	157	40.9
	Unemployed	167	43.5
	Self-employed	39	10.2
	Other	21	5.5
	Total	384	100.0

This establishes the socio-economic status and the buying power of the respondents. This is crucial to the consumption of green products.

4.2.7 Ethnicity

Figure 4.2 gives the ethnicity distribution of the participants. An overwhelming number of the participants were Black (80.5%), followed by Indians (11.5%), Coloureds (6.3%) and White (1.8%) representatives.

Figure 4.2: Ethnicity distribution of the participants



The ethnic distribution of the participants presents a fair distribution of the racial profile in South Africa, particularly Durban, which is predominantly dominated by Blacks and Indians.

4.2.8 Monthly income per amount of money spent on groceries

Table 4.5 shows the monthly income earned by the participants per the money they spend on groceries. Statistical significant differences are observed with respect to monthly income earned and the money spent on groceries per month ($p < 0.05$). It is gathered that more of the participants 172 (44.8%) earn between R0 - R1 000 monthly, followed by those who claim to earn between R1 001 - R5 000 monthly 108 (28.1%). However, only 4 (1.0%) of the participants earn R20 001 and above. This is expected considering that South Africa has the largest inequality in terms of earnings in the world. For instance, 32.9% of the participants earning R0 - R1 000 spend between R201 - R500 on groceries alone per month. Amongst those earning between R1 001 - R5 000 monthly, 31.4% spend R501 - R1000 on groceries per month. It was also discovered that more (32.2%) of the participants earning higher salaries per month (R1 0001 - R20 000 as well as R20 001 and above) (5.1%) spent R1 001 and above monthly on groceries. From the above

results, it can be inferred that the higher the individual earns, the more their purchasing power.

Table 4.5: Monthly income of the participants

		Money spent monthly on groceries (Q7)				Total		
		R1-R200	R201-R500	R501-R1000	R1 001 and above			
Monthly Income	R0-R1 000	Count	57	73	36	6	172	
		% within Q7	80.3%	49.0%	34.3%	10.2%	44.8%	
	R1 001-R5 000	Count	12	49	30	17	108	
		% within Q7	16.9%	32.9%	28.6%	28.8%	28.1%	
	R5 001-R10 000	Count	1	25	33	14	73	
		% within Q7	1.4%	16.8%	31.4%	23.7%	19.0%	
	R10 001-R20 000	Count	1	1	6	19	27	
		% within Q7	1.4%	0.7%	5.7%	32.2%	7.0%	
	R20 001 and above	Count	0	1	0	3	4	
		% within Q7	0.0%	0.7%	0.0%	5.1%	1.0%	
	Total		Count	71	149	105	59	384
			% within Q7	100.0%	100.0%	100.0%	100.0%	100.0%
% of Total			18.5%	38.8%	27.3%	15.4%	100.0%	

Chi-Square test = 0.000

4.3 RELIABILITY: RESEARCH INSTRUMENT

Reliability is an important aspect of precision in research and prior to the discussion of the findings of this study, it is important to look at the issues of reliability. Reliability is computed by taking several measurements on the same subjects of interest, and a reliability coefficient of 0.70 or higher is considered as “acceptable” (Welman *et al.*, 2005: 147). **Table 4.6** reflects the Cronbach’s Alpha score for all the items that constituted the survey questions.

Table 4.6 Cronbach's Alpha

	Number of Items	Cronbach's Alpha
Awareness of green products	9	0.792
Perceptions of green products	4	0.752
Assurance of green products	3	0.846

It can be gleaned from the table above, that the ratings of the participants with regard to the awareness of green products ($\alpha = 0.792$), and perceptions of green products ($\alpha = 0.752$) have Cronbach's Alpha score above the recommended values of 0.700. Equally, the assurance of green products ($\alpha = 0.846$) has a good Cronbach's Alpha score. Hence, it can be inferred that the questionnaire has acceptable (i.e high) reliability values. This means each construct used in each of the sections is of relevance to green products and buying behaviour of consumers.

4.4 GREEN PRODUCTS

In recent years, the global concern for climate change has caused a rethink in how mankind managed the limited resources of the environment (Tai and Chuang 2014: 117). This is evident with the ratification of the Paris Accord which has caused world leaders, religious leaders and environmental activists to lead the quest to save the environment. While several other nations have taken the initiative to implement green products, there is, however, some effort in the adoption of green products and green initiative in South Africa. This section aimed to explore the level of awareness, perceptions and quality assurance of green products amongst South African consumers living in the greater Durban area.

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, one sample t-test was done. The results are summarised in the sections as follows.

4.4.1 Awareness of Green Products

As indicated by the level of significance, the one-sample test revealed that the participants' scoring pattern with regard to their awareness of green products highlighted in **Table 4.7** were statistically significant ($p < 0.001$). This suggests that there is a relatively significant agreement that they are familiar with green products ($M = 2.13 \pm 0.90$; $P < .0001$), awareness of the environmental impact of green products ($M = 2.28 \pm 1.07$; $P < .0001$), influence of price in the purchase of green products ($M = 2.39 \pm 1.05$; $P < .0001$), and green products encompass higher value ($M = 2.35 \pm 0.99$; $P < .0001$). For example, and regarding the statement ***"I am familiar with green products"***, it was observed that more (69.8%) of the participants were in agreement (Strongly agree 25.8%; agree 44.0%). Similarly, more than half (60.2%) of the participants were in agreement (Strongly agree 27.9%; agree 32.3%) that ***"they are aware of the environmental impact of green products"***.

On the other hand, it can be gleaned that participants were likely neutral to the statement ***"Fear of losing our planet enables me to purchase green products"*** ($M = 2.51 \pm 1.04$; $P < .0001$); ***"I always buy green products to conserve the planet"*** ($M = 2.73 \pm 1.09$; $P < .0001$). It can therefore be assumed that the participants were not very sure whether the concern for the planet was the stimulating factor for their purchase of green products. For instance, while 48.0% were in agreement (Strongly agree 20.1%; agree 27.9%), 35.7% were neutral that fear of losing the planet enables them to purchase green products. It was also observed that while 40.1% were in agreement (Strongly agree 15.1%; agree 25.0%), 37.8% were unsure (neutral) that they always buy green products to conserve the planet.

Further to the above, while more than half (51.4%) of the participants were in agreement (Strongly agree 18.8%; agree 32.6%) to the statement ***"I compare green product attributes to those of conventional products before purchasing"***, it emerged that 26.0% were neutral whether they compare green product attributes with conventional products before making a purchase. Moreover, it was also noted that 26.6% of the participants were unsure (neutral) whether the media influence them to purchase green products, whilst 42.1% believed (Strongly agree 13.5%; agree 28.6%) that the media

influenced them to purchase green products. More so, while 45.6% of the participants were in agreement (Strongly agree 17.2%; agree 28.4%) to the statement ***“I think green products in the FMCG sector satisfy the market need”***, 35.4% remain neutral regarding the said statement.

Table 4.7: Participants’ awareness of green products

Awareness of green products	No	Likert scale					Mean	Std.	T-test	P-value
		SA	A	N	D	SD			value	
I am familiar with green products	384	25.8%	44.0%	22.9%	6.3%	1.0%	2.13	0.90	46.138	0.000
I am aware of the environmental impact of green products	384	27.9%	32.3%	27.6%	8.6%	3.6%	2.28	1.07	41.604	0.000
Fear of losing our planet enables me to purchase green products	384	20.1%	27.9%	35.7%	14.1%	2.3%	2.51	1.04	47.383	0.000
I always buy green products to conserve the planet	384	15.1%	25.0%	37.8%	16.1%	6.0%	2.73	1.09	49.130	0.000
I compare green product attributes to those of conventional products before purchasing	384	18.8%	32.6%	26.0%	17.4%	5.2%	2.58	1.13	44.590	0.000
Price influences my green purchasing intentions	384	21.1%	37.2%	25.8%	13.0%	2.9%	2.39	1.05	44.804	0.000
Green products encompass higher value	384	20.3%	39.6%	27.9%	9.6%	2.6%	2.35	0.99	46.347	0.000
I am influenced by media to purchase green products	384	13.5%	28.6%	26.6%	25.0%	6.3%	2.82	1.14	48.459	0.000

I think green products in the FMCG sector satisfy the market need	384	17.2%	28.4%	35.4%	14.1%	4.9%	2.61	1.08	47.475	0.000
Likert scale= SD (Strongly Disagree), D (Disagree), N (Neutral), A (Agree), SA (Strongly Agree) P<0.001										

In this section, only questions that constitute the awareness of green products were considered as depicted by **Table 4.6** above. This section also revealed that a good number of the participants were aware of green products.

4.4.1.1 Relationship between biographical information and awareness of green products

This section examines whether the participants’ biographical information such as gender, age group, level of education, occupational role, monthly income, location of residence, and money spent on groceries had an influence in their scoring pattern.

4.4.1.1.1 Influence of gender and awareness of green products

As shown in **Table 4.8**, it can be surmised that the participants’ gender did not differ in their scoring pattern with respect to the awareness of green products ($P>0.05$). It can, however, be seen that males (2.54 ± 0.67) were more neutral with respect to the awareness of green products when compared against the females (2.45 ± 0.63).

Table 4.8: Relationship between gender and awareness of green products

	Gender	N	Mean	Std. Deviation	Std. Error Mean	P value
Awareness	Male	173	2.5369	.66872	.05084	0.172
	Female	210	2.4460	.62971	.04345	

$P > 0.05$

4.4.1.1.2 Influence of age group and awareness of green products

The mean, standard deviation, and one-way ANOVA test on the relationship between age group of the participants and the awareness of green products are shown in **Table 4.9**. As indicated by the level of significance, the ANOVA test suggests that the awareness of green products significantly differs with respect to the age group of the participants ($P < 0.05$).

With reference to the age group, it can be assembled that the mean (2.62 ± 0.56) observed for participants within 18-19 years were not different from those measured (2.50 ± 0.04) in the 20-35 years' age group ($P > 0.05$). Similarly, no statistical differences were measured for participants in the age group 20-35 years and 36-50 years ($P > 0.05$), as well as 18-19 years and over 50 years ($P > 0.05$). In contrast, it can be gleaned that more (2.62 ± 0.56) of the participants within the age group 18-19 years were neutral when compared against those within the age group 36-50 years (2.25 ± 0.43) on the awareness of green products ($P < 0.05$).

Table 4.9: Relationship between age group and awareness of green products

Age group	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA	Post hoc Bonferroni Test
					Lower Bound	Upper Bound		
18-19 years	77	2.6219	.56462	.06434	2.4938	2.7501	0.017	0.757 ^{1,2}
20-35 years	257	2.4942	.65224	.04069	2.4140	2.5743		0.111 ^{2,3}
36-50 years	46	2.2512	.71066	.10478	2.0402	2.4622		0.012 ^{1,3*}
Over 50 years	4	2.2222	.42552	.21276	1.5451	2.8993		1.000 ^{1,4}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.1.1.3 Influence of occupational status and awareness of green products

The relationship between the participants' occupational status and their response to the awareness of green products is highlighted in **Table 4.10**. As indicated by the level of significance, the ANOVA test failed to show any significant differences with regard to the participants' occupational status and their awareness of green products ($P > 0.05$). This suggests that the participants' occupational status does not in any way influence their scoring pattern with regard to the statements that measured their awareness of green products.

Table 4.10: Relationship between occupational status and awareness of green products

Level of education	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
Employed	157	2.4763	.68552	.05471	2.3682	2.5844	0.939
Unemployed	167	2.4837	.62808	.04860	2.3877	2.5797	
Self-employed	39	2.5100	.66799	.10696	2.2934	2.7265	
Other	21	2.5661	.48674	.10622	2.3446	2.7877	
Total	384	2.4878	.64767	.03305	2.4229	2.5528	

4.4.1.1.4 Influence of level of education and awareness of green products

The mean, standard deviation, and one-way ANOVA test on the relationship level of education of the participants and the awareness of green products are shown in **Table 4.11**. As indicated by the level of significance, the ANOVA test suggests that the awareness of green products significantly differs with respect to the participants' level of education ($P < 0.05$).

Specifically, and given by the Post Hoc LSD test, the Under Matrics (2.84 ± 0.72) were significantly more neutral in the response to the statements that measured their awareness of green products when compared against Matriculates ($2.51 \pm$), Diplomas (2.43 ± 0.62), Bachelor's Degrees (2.42 ± 0.65), and Post-Graduates (2.40 ± 0.52). No significant differences were observed between the Under Matric and any other forms of education ($P > 0.05$).

Table 4.11: Relationship between level of education and awareness of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc LSD test
					Lower Bound	Upper Bound		
Under matric	33	2.8384	.71583	.12461	2.5846	3.0922	0.029	0.009 ^{1,2}
Matriculate	118	2.5075	.66325	.06106	2.3866	2.6285		0.350 ^{2,3}
Diploma	139	2.4325	.61715	.05235	2.3290	2.5360		0.001 ^{1,3}
Bachelor's degree	74	2.4159	.64502	.07498	2.2665	2.5654		0.002 ^{1,4}
Post-Graduate	17	2.3987	.51678	.12534	2.1330	2.6644		0.022 ^{1,5}
Other	3	2.7037	.44905	.25926	1.5882	3.8192		0.728 ^{1,6}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.1.1.5 Influence of ethnicity and awareness of green products

The relationship between the scoring pattern of the participants by their ethnicity and the perceived awareness of green products is shown in **Table 4.12**. It can be noted from the table that the participants' awareness of green products differs significantly in respect to their ethnicity ($P < 0.01$). For instance, and as given by the Bonferroni test, it can be seen that more (2.54 ± 0.63) of the Black participants were neutral when compared against the Coloureds (2.12 ± 0.64) who appeared more in agreement on the awareness of green products ($P < 0.05$). However, no differences were observed between the Blacks and the Indians ($P > 0.05$), Blacks and Whites ($P > 0.05$), Indians and Whites ($P > 0.05$), Indians and Coloureds ($P > 0.05$), and Whites and Coloureds ($P > 0.05$).

Table 4.12: Relationship between ethnicity and awareness of green products

Ethnicity	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA <i>P</i> value	Post hoc Bonferroni test
					Lower Bound	Upper Bound		
Black	309	2.5365	.63038	.03586	2.4659	2.6071	0.005	1.000 ^{1,2}
Indian	44	2.4091	.72516	.10932	2.1886	2.6296		1.000 ^{2,1}
Coloured	24	2.1157	.64413	.13148	1.8437	2.3877		0.012 ^{1,3}
White	7	2.1111	.36289	.13716	1.7755	2.4467		0.495 ^{1,4}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.1.1.6 Influence of monthly income and awareness of green products

The mean, standard deviation, and one-way ANOVA test results are given in **Table 4.13**. Notably, the ANOVA test shows that there was a statistical significant difference in the monthly income of the participants and their awareness of green products ($P < 0.01$). Specifically, participants earning between R0 - R1 000 (2.5 ± 0.62) as well as R1 001 -R5 000 (2.6 ± 0.66) were significantly more neutral when compared against participants (2.1 ± 0.65) earning R10 001 - R20 000 ($P < 0.05$). Overall, it can be seen that participants earning higher amounts agreed that they are aware of green products when compared against those earning less, who tend to be more neutral.

Table 4.13: Relationship between monthly income and awareness of green products

Monthly Income	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post Hoc Bonferroni
					Lower Bound	Upper Bound		
R0 - R1 000	172	2.4922	.61987	.04726	2.3990	2.5855	0.001	1.000 ^{1,2}
R1 001 - R5 000	108	2.6183	.66080	.06359	2.4923	2.7444		0.01 ^{2,4}
R5 001 - R10 000	73	2.4612	.64168	.07510	2.3115	2.6109		1.000
R10 001 - R20 000	27	2.0782	.64775	.12466	1.8219	2.3344		0.018 ^{1,4}
R20 001 and above	4	2.0278	.36712	.18356	1.4436	2.6119		0.691 ^{2,5}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.1.1.7 Influence of monthly spend on groceries and awareness of green products

Table 4.14 describes the relationship that exists between the amount of money spent monthly on groceries by the participants and the responses to the awareness of green products. The ANOVA test suggests that a significant relationship exists between the amount spent monthly on groceries and the participants' perceived awareness of green products ($P < 0.05$). It was also noted that more (2.4 ± 0.63) of the participants spending R501 - R1 000 monthly for groceries were in agreement that they are aware of green products when compared with those (2.6 ± 0.71) spending R1 - R200 ($P < 0.05$). Similarly, significant differences were noted as more (2.3 ± 0.68) participants spending R1 001 and above were also in agreement that they are aware of green products compared to those spending R1 - R200 ($P < 0.05$). No significant differences were observed with respect to those spending R1 - R200 and R201 - R500 monthly for groceries ($P > 0.05$). It can therefore be deduced that participants spending more on groceries are more likely to be aware of green products compared to those spending less. This could however, be attributed to the monthly income of the participants (**Table 4.13**).

Table 4.14: Relationship between monthly spend on groceries and awareness of green products

Amount spent monthly on groceries	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
R1-R200	71	2.6150	.70594	.08378	2.4479	2.7821	0.038	0.409 ^{1,2}
R201-R500	149	2.5384	.60731	.04975	2.4401	2.6367		0.409 ^{2,1}
R501-R1 000	105	2.4201	.62721	.06121	2.2987	2.5415		0.049 ^{1,3}
R1 001 and above	59	2.3277	.67914	.08842	2.1507	2.5047		0.012 ^{1,4}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.1.1.8 Influence of residence and awareness of green products

Table 4.15 describes the relationship that exists between the residence of the participants and their responses to the awareness of green products. The ANOVA test indicates that no significant relationship exists between the residence and the participants' perceived awareness of green products ($P > 0.05$). This therefore suggests that, irrespective of the residence, the awareness of green products remains the same. It can be gathered that the participants were more likely neutral regarding the awareness of green products.

Table 4.15: Relationship between residence and awareness of green products

Residence	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
Glenwood	132	2.4747	.59497	.05179	2.3723	2.5772	0.943
Greyville	68	2.5310	.68489	.08306	2.3653	2.6968	
Durban Central	127	2.4777	.65395	.05803	2.3629	2.5925	
Other	57	2.4893	.71728	.09501	2.2990	2.6796	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2 Perceptions of green products

As indicated by the level of significance, the one-sample test revealed that the participants' scoring pattern with regards to the perception of green products highlighted in **Table 4.15** were statistically significant ($P < 0.001$). This suggests that a more significant number of the participants have a good perception of green products compared to conventional products in the FMCG sector ($M = 2.11 \pm 0.95$; $P < 0.0001$), and are most likely to recommend green products to friends ($M = 2.16 \pm 0.99$; $P < 0.0001$). For example, when asked to describe their perceptions of green products compared to conventional products in the FMCGs sector, nearly half of the participants (49.2%) consider their perceptions of green products to be good. Given the good perceptions of green products, it was no surprise that more (39.5%) of the participants are likely to recommend green products to friends.

Equally important, more ($M = 2.29 \pm 1.01$; $P < 0.0001$) of the participants rated the overall experience of green products in the FMCGs sector, and the marking of green products to be good ($M = 2.56 \pm 1.11$; $P < 0.0001$). In terms of the statement ***“How do you rate the overall experience of green products in the FMCG sector?”*** It was found that more

(39.3%) of the participants rated it as good. Similarly, and regarding the statement **“How would you rate the marketing of green products?”**, it was also established that more (33.3%) rated it to be good.

Table 4.16: Participants’ perceptions of green products

Perceptions of green products	No	Likert scale					Mean	Std.	T-test	P-value
		E	G	A	F	P			value	
I am familiar with green products	384	25.8%	49.2%	15.6%	6.8%	2.6%	2.11	0.95	43.406	0.000
I am aware of the environmental impact of green products	384	27.9%	39.8%	22.7%	7.3%	2.3%	2.16	0.99	42.762	0.000
Fear of losing our planet enables me to purchase green products	384	23.4%	39.3%	25.0%	9.6%	2.6%	2.29	1.01	44.260	0.000
I always buy green products to conserve the planet	384	17.7%	33.3%	30.7%	11.5%	6.8%	2.56	1.11	45.114	0.000
Likert scale= E(Excellent), G(Good), A (Average), F (Fair), P(Poor) P<0.001										

This section suggests that the perceptions of green products amongst the participants is good.

4.4.2.1 Relationship between biographical information and perceptions of green products

This section examines whether the participants’ biographical information such as gender, age group, level of education, occupational role, monthly income, location of residence, and money spent on groceries had an influence in their scoring pattern.

4.4.2.1.1 Influence of gender and awareness of green products

As shown in **Table 4.17**, it can be deduced that the participants' gender did not differ in their scoring pattern with respect to the perceptions of green products ($P>0.05$). This suggest that both males and females have a good perception of green products.

Table 4.17: Relationship between gender and awareness of green products

	Gender	N	Mean	Std. Deviation	Std. Error Mean	P value
Perceptions	Male	173	2.2991	.81709	.06212	0.705
	Female	210	2.2690	.73465	.05070	

$P>0.05$

4.4.2.1.2 Influence of age group and perceptions of green products

The mean, standard deviation, and one-way ANOVA test on the relationship between age group of the participants and the perception of green products is shown in **Table 4.18**. As indicated by the level of significance, the ANOVA test revealed that the perceptions of green products significantly differs with respect to the age group of the participants ($P<0.05$).

With reference to the age group, it can be noted that more of the participants within the age group 20-35 (2.25 ± 0.76) and 36-50 years (2.01 ± 0.79) significantly perceived green products to be good ($P>0.05$). Overall, it can be collected that participants at the middle age (20-50 years) have good perceptions of green products whilst the younger (18-19 years) and far older (above 50 years) have average perceptions of green products.

Table 4.18: Relationship between age group and perception of green products

Age group	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc Bonferroni test
					Lower Bound	Upper Bound		
18-19 years	77	2.5390	.74677	.08510	2.3695	2.7085	0.002	1.000 ^{1,5}
20-35 years	257	2.2500	.75938	.04737	2.1567	2.3433		0.022 ^{1,2}
36-50 years	46	2.0109	.78697	.11603	1.7772	2.2446		0.001 ^{1,3}
Over 50 years	4	2.4375	.65749	.32874	1.3913	3.4837		1.000 ^{5,1}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2.1.3 Influence of level of education and perceptions of green products

The ANOVA test in **Table 4.19** suggests that the perceptions of green products in respect of the participants' level of education were the same ($P > 0.05$).

Table 4.19: Relationship between level of education and perception of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA
					Lower Bound	Upper Bound	
Under matric	33	2.5455	.60742	.10574	2.3301	2.7608	0.337
Matriculate	118	2.2903	.81909	.07540	2.1409	2.4396	
Diploma	139	2.2374	.74535	.06322	2.1124	2.3624	
Bachelor's degree	74	2.1993	.77634	.09025	2.0195	2.3792	
Post-Graduate	17	2.3824	.90622	.21979	1.9164	2.8483	
Other	3	2.5000	.50000	.28868	1.2579	3.7421	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2.1.4 Influence of occupational status and perceptions of green products

As indicated by the level of significance, the ANOVA test in **Table 4.20** suggests that the perceptions of green products in respect of the participants' occupational status were the same ($P>0.05$).

Table 4.20: Relationship between occupational status and perception of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA <i>P</i> value
					Lower Bound	Upper Bound	
Employed	157	2.2675	.75961	.06062	2.1478	2.3873	0.533
Unemployed	167	2.3278	.78335	.06062	2.2082	2.4475	
Self-employed	39	2.1282	.86388	.13833	1.8482	2.4082	
Other	21	2.2976	.56800	.12395	2.0391	2.5562	
Total	384	2.2813	.77156	.03937	2.2038	2.3587	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2.1.5 Influence of ethnicity and perceptions of green products

The ANOVA test in **Table 4.21** suggests that the perceptions of green products in respect of the participants' ethnicity were the same ($P>0.05$).

Table 4.21: Relationship between ethnicity and perception of green products

Race	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
Black	309	2.2888	.75627	.04302	2.2042	2.3735	0.810
Indian	44	2.2955	.94971	.14317	2.0067	2.5842	
Coloured	24	2.1354	.64260	.13117	1.8641	2.4068	
White	7	2.3571	.70500	.26646	1.7051	3.0092	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2.1.6 Influence of monthly income and perceptions of green products

The mean, standard deviation, and one-way ANOVA test results are given in **Table 4.22**. The ANOVA results show statistical significant differences in the monthly income of the participants and their perceptions of green products ($P < 0.05$). Specifically, more (2.09 ± 0.75) of participants earning between R10 001 - R20 000 significantly had a good perception of green products when compared against those (2.43 ± 0.85) earning R1 001 - R5 000 ($P < 0.05$). Regardless of the monthly income earned by the participants, the majority of the participants appear to have good perceptions of green products.

Table 4.22: Relationship between monthly income and perception of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc Bonferroni test
					Lower Bound	Upper Bound		
R0-R1 000	172	2.3081	.67665	.05159	2.2063	2.4100	0.016	1.000 ^{1,5}
R1 001-R5 000	108	2.4329	.84666	.08147	2.2714	2.5944		0.013 ^{2,3}
R5 001-R10 000	73	2.0925	.74711	.08744	1.9182	2.2668		1.000
R10 001-R20 000	27	2.0093	.98176	.18894	1.6209	2.3976		0.593 ^{1,4}
R20 001 and above	4	2.3125	.42696	.21348	1.6331	2.9919		1.000 ^{5,1}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2.1.7 Influence of monthly spend on groceries and perceptions of green products

The ANOVA test in **Table 4.23** suggests that regardless of the monthly money spent on groceries, the participants' perceptions of green products were the same ($P > 0.05$).

Table 4.23: Relationship between amounts spent monthly on groceries and perceptions of green products

Amount spent monthly on groceries	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
R1-R200	71	2.4014	.73007	.08664	2.2286	2.5742	0.248
R201-R500	149	2.2483	.65984	.05406	2.1415	2.3551	
R501-R1 000	105	2.1952	.76898	.07504	2.0464	2.3441	
R1 001 and above	59	2.3729	1.03638	.13492	2.1028	2.6430	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.2.1.8 Influence of residence and perceptions of green products

The ANOVA test in **Table 4.24** suggests that residence of the participants does not significantly influence the perceptions of green products ($P > 0.05$). Hence, it can be gathered that the participants had a good perception of green products irrespective of their residence.

Table 4.24: Relationship between residence and perceptions of green products

Residence	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
Glenwood	132	2.3636	.74031	.06444	2.2362	2.4911	0.452
Greyville	68	2.1912	.77039	.09342	2.0047	2.3777	
Durban Central	127	2.2539	.77279	.06857	2.1182	2.3896	
Other	57	2.2588	.84114	.11141	2.0356	2.4820	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3 Assurance of green products

As indicated by the level of significance, the one-sample test revealed that the participants' scoring pattern with regard to the assurance of green products highlighted in **Table 4.26** were statistically significant ($P < 0.001$).

With regards to the statement ***"I always read the labels of products before purchasing"***, it was found that 43% of the participants were in agreement (Strongly agree 21.4%; agree 21.6%), whilst 31.8% in disagreement (Disagree 20.3%; strongly disagree 11.5%), and 25.3% neutral that they always read the labels of products before making a purchase.

In terms of the statement ***"I consider certification labelling as an effective tool when purchasing green products"***, it emerged that 44.2% were in agreement (Strongly agree 15.6%; agree 28.6%), 24.2% in disagreement (Disagree 15.9%; strongly disagree 8.3%), and 31.5% neutral about considering certification labelling as an effective tool when purchasing green products. Equally, and in respect to the statement ***"certification labels influence me to purchase products"***, it was found that 41.9% were in agreement (Strongly agree 15.9%; agree 26.0%), 27.3% in disagreement (Disagree 17.7%; strongly disagree 9.6%), and 30.7% were neutral that certification labels influence them to purchase green products.

Overall, it can be collated from **table 4.25** that on average, more of the participants appear to be neutral with respect to the statement ***"I always read the label"*** ($M = 2.79 \pm 1.30$; $P < .0001$), ***"I consider certification labelling an effective tool when purchasing green products"*** ($M = 2.73 \pm 1.15$; $P < .0001$), and ***"Certification labels influence me to purchase products"*** ($M = 2.79 \pm 1.19$; $P < .0001$).

Table 4.25: Participants' assurance of green products

Assurance of green products	No	Likert scale					Mean	Std.	T-test value	P. value
		SA	A	N	D	SD				
I always read the labels of products before purchasing	384	21.4%	21.6%	25.3%	20.3%	11.5%	2.79	1.30	42.021	0.000
I consider certification labelling an effective tool when purchasing green products	384	15.6%	28.6%	31.5%	15.9%	8.3%	2.73	1.15	46.288	0.000
Certification labels influence me to purchase products	384	15.9%	26.0%	30.7%	17.7%	9.6%	2.79	1.19	45.930	0.000
Likert scale= SD (Strongly Disagree), D(Disagree), N (Neutral), A (Agree), SA (Strongly Agree) P<0.001										

This section suggests that on average more of the participants were neutral to the statement measuring the assurance of green products in terms of labelling and certification.

4.4.3.1 Relationship between biographical information and assurance of green products

This section examines whether the participants' biographical information such as gender, age group, level of education, occupational role, monthly income, location of residence, and money spent on groceries had an influence on their scoring pattern.

4.4.3.1.1 Influence of gender and assurance of green products

As shown in **Table 4.26**, the Independent t–test suggests that the male participants (2.94 ± 1.05) were more neutral to the statements measuring assurance of green products when compared (2.64 ± 1.05) to the females ($P < 0.01$).

Table 4.26: Relationship between gender and assurance of green products

	Q2	N	Mean	Std. Deviation	Std. Error Mean	P value
Assurance	Male	173	2.9403	1.04901	.07975	0.005
	Female	210	2.6365	1.05442	.07276	

$P < 0.05$

4.4.3.1.2 Influence of age group and assurance of green products

The mean, standard deviation, and one-way ANOVA test on the relationship between age group of the participants and the assurance of green products are shown in **Table 4.27**. As indicated by the level of significance, the ANOVA test revealed that the scoring pattern of the participants, regardless of the age groups, were the same ($P > 0.05$).

Table 4.27: Relationship between age group and assurance of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
18-19 years	77	2.8658	.99599	.11350	2.6397	3.0919	0.598
20-35 years	257	2.7211	1.09313	.06819	2.5869	2.8554	
36-50 years	46	2.8913	1.03053	.15194	2.5853	3.1973	
Over 50 years	4	2.5833	.87665	.43833	1.1884	3.9783	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3.1.3 Influence of level of education and assurance of green products

The ANOVA test in **Table 4.28** indicates that the assurance of green products was significantly different with respect to the participants' level of education ($P < 0.05$). According to the Bonferroni test, it can be noted that participants with a Post-Graduate (2.22 ± 0.82) level of education were significantly more in agreement when compared against the Matriculates (3.01 ± 1.09) regarding the scoring of the statements that measured assurance of green products ($P < 0.05$). Similarly, Bachelor's degree level of education (2.56 ± 0.98) participants were significantly more in agreement when compared to the Matriculates ($P < 0.05$). No significant different were measured with respect to other categories of level of education ($P > 0.05$).

Table 4.28: Relationship between level of education and assurance of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc Tukey HSD test
					Lower Bound	Upper Bound		
Under matric	33	2.9697	1.21153	.21090	2.5401	3.3993	0.005	0.706 ^{1,3}
Matriculate	118	3.0169	1.09375	.10069	2.8175	3.2164		1.000 ^{2,1}
Diploma	139	2.6787	1.03124	.08747	2.5057	2.8516		0.105 ^{3,2}
Bachelor's degree	74	2.5631	.97601	.11346	2.3369	2.7892		0.043 ^{4,2}
Post-Graduate	17	2.2157	.81600	.19791	1.7961	2.6352		0.039 ^{5,2}
Other	3	3.2222	.69389	.40062	1.4985	4.9459		0.999 ^{5,2}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3.1.4 Influence of occupational status and perceptions of green products

As indicated by the level of significance, the ANOVA test in **Table 4.29** revealed that the scoring pattern of the participants regarding the statements that measured assurance of green products significantly differs based on their occupational status ($P < 0.05$).

Although on average the participants were neutral to the assurance of green products, the Bonferroni test suggests that employed participants were significantly more neutral than those unemployed ($P < 0.05$).

Table 4.29: Relationship between occupational status and assurance of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc Bonferroni test
					Lower Bound	Upper Bound		
Employed	157	2.9427	1.04335	.08327	2.7782	3.1072	0.024	0.015 ^{1,2}
Unemployed	167	2.5848	1.06261	.08223	2.4225	2.7472		1.000 ^{2,3}
Self-employed	39	2.8205	1.04810	.16783	2.4808	3.1603		1.000 ^{1,3}
Other	21	2.8413	1.09351	.23862	2.3435	3.3390		1.000 ^{2,4}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3.1.5 Influence of ethnicity and assurance of green products

The ANOVA test in **Table 4.30** indicates that the assurance of green products in respective of the participants' ethnicity were the same ($P > 0.05$). This suggests that the ethnicity of the participant does not influence their scoring pattern regarding the statements that measured assurance of green products.

Table 4.30: Relationship between ethnicity and assurance of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
Black	309	2.7238	1.09931	.06254	2.6008	2.8469	0.336
Indian	44	3.0303	.95862	.14452	2.7389	3.3218	
Coloured	24	2.8472	.84544	.17258	2.4902	3.2042	
White	7	2.8571	.50395	.19048	2.3911	3.3232	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3.1.6 Influence of monthly income and assurance of green products

The mean, standard deviation, and one-way ANOVA test results are given in **Table 4.31**. The ANOVA results failed to show any statistical significant differences in the monthly income of the participants and their scoring pattern with respect to the statement that measured assurance of green products ($P>0.05$).

Table 4.31: Relationship between monthly income and assurance of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value
					Lower Bound	Upper Bound	
R0-R1000	172	2.7016	1.07609	.08205	2.5396	2.8635	0.642
R1 001-R5 000	108	2.8302	1.14340	.11002	2.6121	3.0484	
R5 001-R10 000	73	2.8219	.98771	.11560	2.5915	3.0524	
R10 001-R20 000	27	2.8889	.88192	.16973	2.5400	3.2378	
R20 001 and above	4	2.2500	.87665	.43833	.8551	3.6449	

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3.1.7 Influence of monthly money spend on groceries and assurance of green products

The mean, standard deviation, and one-way ANOVA test results are given in **Table 4.32**. The ANOVA test results show a statistical significant difference in the amounts spent monthly by the participants on groceries and their scoring pattern in respect of statements measuring assurance of green products ($P<0.05$).

According to the Bonferroni test, it can be gathered that participants spending R1-R200 monthly on groceries (3.15 ± 1.07) were significantly more neutral when compared against those who spend R201 - R500 (2.71 ± 1.06), and R501 - R1 000 (2.54 ± 1.05) regarding the scoring of the statements that measured assurance of green products ($P<0.05$).

However, no differences were noted with respect to those spending R1 - R200 and those spending R1 001 and above ($P>0.05$).

Table 4.32: Relationship between monthly spend on groceries and assurance of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc Bonferroni test
					Lower Bound	Upper Bound		
R1-R200	71	3.1549	1.06879	.12684	2.9020	3.4079	0.002	1.000 ^{1,4}
R201-R500	149	2.7092	1.06351	.08713	2.5370	2.8813		0.002 ^{1,2}
R501-R1 000	105	2.5429	1.04826	.10230	2.3400	2.7457		0.001 ^{1,3}
R1 001 and above	59	2.8588	.97321	.12670	2.6051	3.1124		1.000 ^{4,1}

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.4.3.1.8 Influence of residence and assurance of green products

The ANOVA test in **Table 4.33** indicates that residence of the participants significantly influences their scoring pattern concerning the statements that constitute assurance of green products ($P<0.01$). On average, although the participants were more neutral in their scoring pattern, it was found that participants residing in Greyville (3.18 ± 1.10) were significantly more neutral when compared against those residing in Glenwood (2.51 ± 0.99) in their scoring pattern regarding the assurance of green products ($P<0.01$). No differences were noted with regards to Glenwood and Durban Central and Greyville and Durban Central ($P>0.05$).

Table 4.33: Relationship between residence and perceptions of green products

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		ANOVA P value	Post hoc Bonferroni test
					Lower Bound	Upper Bound		
Glenwood	132	2.5076	.98802	.08600	2.3375	2.6777	0.002	5.00
Greyville	68	3.1765	1.10099	.13351	2.9100	3.4430		5.00
Durban Central	127	2.8346	1.04136	.09241	2.6518	3.0175		5.00
Other	57	2.7427	1.09294	.14476	2.4527	3.0327		5.00

Superscript numbers indicate significant differences between the sample groups (ANOVA, $p < 0.05$).

4.5 The relationship between awareness, perceptions and assurance of green products

Pearson correlation was used to quantify the relationship between awareness, perceptions and assurance of green products. As shown in **Table 4.34**, the Pearson correlation value revealed that a significant positive strong relationship exists between awareness and perceptions of green products ($r=0.412$; $P<0.001$) as well as awareness and assurance of green products ($r=0.402$; $P<0.001$). Equally, it was found that perceptions of green products correlate weakly with assurance of green products ($r=0.308$; $P<0.001$). It can therefore be inferred that as one variable increases, so does the other variable increase and vice versa. This was done to measure the relationship between the components that constitute the questionnaire.

Table 4.34 Correlation analysis of variables

		Awareness	Perceptions	Assurance
Awareness	Pearson Correlation	1	.412**	.402**
	Sig. (2-tailed)		.000	.000
	N	384	384	384
Perceptions	Pearson Correlation	.412**	1	.308**
	Sig. (2-tailed)	.000		.000
	N	384	384	384
Assurance	Pearson Correlation	.402**	.308**	1
	Sig. (2-tailed)	.000	.000	
	N	384	384	384
**. Correlation is significant at the 0.01 level (2-tailed).				

4.6 Validating the construct measuring green products

Factor analysis is a form of analytical procedure and its main aim is data reduction. Factor analysis is often carried out using a combination of factor extraction and factor rotation. Factor analysis has the ability to reduce the gathered items into smaller and more meaningful components or factors. In this chapter, the factor extraction method was used to identify the underlying constructs and patterns of relationships among the items constituting the survey questions.

4.6.1 Validating the construct measuring awareness of green products

To help validate the factors measuring awareness of green products, exploratory factor analysis, making use of Principle Component Analysis (PCA) extraction method and Varimax rotation on all nine (9) statements that constitute the awareness of green products in the questionnaire, was conducted. Before running the PCA, the suitability of the data for factor analysis was assessed. The correlation matrix revealed the presence of many coefficients of 0.5 and above. The Kaiser-Meyer value was 0.62 which exceeds the recommended value of 0.6 (Kaiser 1974) and the Barlett's Test of Sphericity was statistical significance - thus supporting the suitability of the correlation matrix (**Table**

4.35). Importantly, and using the eigenvalues-greater-than-one, the principle component analysis revealed three component matrix with a total variance of 64.4%

Table 4.35: KMO and Bartlett's Test for awareness of green products

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.799
Bartlett's Test of Sphericity	Approx. Chi-Square	926.610
	df	36
	Sig.	.000

Table 4.36: Validating the awareness of green products

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.496	38.844	38.844	3.496	38.844	38.844
2	1.291	14.350	53.194	1.291	14.350	53.194
3	1.004	11.159	64.353	1.004	11.159	64.353

Statements constituting awareness of green products	Factor descriptor	Component		
		1	2	3
I am familiar with green products (Q9)		.821	.093	.017
I am aware of the environmental impact of green products(Q10)	Influence of environment	.767	.177	.218
Fear of losing our planet enables me to purchase green products (Q11)		.726	.260	.187
I always buy green products to conserve the planet (Q12)		.560	.482	.004
I compare green product attributes to those of conventional products before purchasing (Q13)	Influence of price	.345	.712	-.113

Price influences my green purchasing intentions (Q14)		.102	.811	.129
Green products encompass higher value (Q15)		.152	.690	.231
I am influenced by media to purchase green products (Q16)	Influence of media	.128	.056	.837
I think green products in the FMCG sector satisfy the market need (Q17)		.106	.117	.804

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.

From **Table 4.36**, it can be deduced that the statements measuring the constructs awareness of green products loaded into three (3) separate components. These have been colour-coded to draw more emphasis regarding the different loading of the construct. The factor analysis identified three (3) different descriptors, namely influence of the environment (Q9-Q12), influence of price (Q13-Q15), and influence of the media (Q16-Q17) as the determinant factors that influenced the participants' awareness of green products.

4.6.2 Validating the construct measuring perceptions of green products

In validating the factors measuring perceptions of green products, a similar process to that adopted in **section 4.6.1** was followed. The Kaiser-Meyer value and the Barlett's Test of Sphericity revealed a value that exceeded the recommended value (**Table 4.37**). Equally, and using the eigenvalues-greater-than-one, the principle component analysis revealed one component matrix with a total variance of 57.8%.

Table 4.37: KMO and Bartlett’s Test for perceptions of green products

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.727
Bartlett's Test of Sphericity	Approx. Chi-Square	373.215
	df	6
	Sig.	0

Table 4.38: Validating the perceptions of green products

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.313	57.826	57.826	2.313	57.826	57.826

Statements constituting perceptions of green products	Component
	1
Compared to conventional products how would you rate green products in the FMCG sector? (Q18)	.757
What is your likelihood of recommending green products (Q19)	.763
How do you rate the overall experience of green products in the FMCG sector?(Q20)	.829
How would you rate the marketing of green products? (Q21)	.686

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

From **Table 4.38**, it can be concluded that the statements measuring the constructs of the perceptions of green products loaded perfectly into one component. This suggests

that there was consistency in the scoring pattern of the participants regarding the perceptions of green products.

4.6.3 Validating the construct measuring assurance of green products

In validating the factors measuring assurance of green products, a similar process to that adopted in **section 4.6.1** was followed. The Kaiser-Meyer value and the Bartlett's Test of Sphericity revealed a value that exceeded the recommended value (**Table 4.39**). Equally, and using the eigenvalues-greater-than-one, the principle component analysis revealed one component matrix with a total variance of 57.8%.

Table 4.39: KMO and Bartlett's Test for assurance of green products

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.713
Bartlett's Test of Sphericity	Approx. Chi-Square	501.359
	df	3
	Sig.	.000

Table 4.40: Validating the assurance of green products

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.303	76.768	76.768	2.303	76.768	76.768

Statements constituting assurance	Component
	1
I always read the labels of products before purchasing (Q22)	.859
I consider certification labelling an effective tool when purchasing green products (Q23)	.906
Certification labels influence me to purchase products (Q24)	.863

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

From **Table 4.40**, it can be gathered that the statements measuring the constructs of the assurance of green products loaded perfectly into one component. This suggests that there was consistency in the scoring pattern of the participants regarding the assurance of green products.

4.7 CONCLUSION

This chapter presented the analysed data that was collected from the distribution of questionnaires. However, a comprehensive analysis of the data is supposed obligatory, to facilitate a thorough discussion and understanding of the analysed data together with the recent literature. The next chapter (Chapter 5) will provide a thorough discussion of the data analysed. In this chapter, different quantitative measures were presented to understand the descriptive and inferential statistics that best suit the objectives of the

study. Figures and tables were used to better present the analysed data. The reliability of the measuring instrument was tested using Cronbach Alpha's coefficient which produced high reliability values.

CHAPTER FIVE

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter will provide a discussion of the findings of the primary and secondary data. It seeks to provide a thorough understanding by looking at the issues outlined from the first chapter and how the study came to its solutions. This chapter will be guided by the objectives set from the first chapter of this study.

5.2 OUTLINE OF STUDY

The aim of the study was to analyse the factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area. This study focused mainly on the importance of green products in the FMCG sector and touched slightly on the statutory side of green marketing, such as the 'polluter must pay principle'. It also highlights the importance of manufacturing, marketing and purchasing of green products. Primary and secondary data was collected in this study and segmented in three (3) concepts as follows:

- Level of awareness of green products in the greater Durban area,
- Perceptions of green products in the greater Durban area, and
- Assurance of green products among the residents of the greater Durban area.

The above three (3) concepts constituted the survey questions were was drafted to extract information that will serve to address all four (4) objectives of the study.

The literature review (Chapter Two) presented the academic debate on the factors that influence the demand and consumption patterns of green products in the FMCG sector. This chapter uncovered the thorough explanation of green products. The chapter also focused on green consumer behaviour. Green consumers were identified using their typical habits that allow marketers to group them into distinguishable market segments.

The literature review also focused on the consumers' environmental concerns to reveal the causes of green consumption patterns and also differentiate between green consumers and "green concerned individuals". Ultimately the literature looked at the role of media in influencing green products consumption and the role of certification labelling in scaling up the consumption of green products.

However, the literature did not thoroughly identify the effectiveness of certification labelling in respect of the monthly income and monthly spend that determines the buying power of an individual. There was also a gap in identifying the true influencers of green products in the greater Durban area.

Chapter Four (4) presented data obtained through the dissemination of questionnaires to economically active shoppers in the greater Durban area. The study employed a quantitative, non-probability and random sampling method to uncover consumers' attitudes towards the consumption of green products. It was identified from Chapter One (1) that the greater Durban area has over 700 000 residents; the SPSS (Version 25) suggested that a total number of 384 questionnaires be distributed in Glenwood, Greyville and Durban Central (greater Durban area), of which all were returned and captured for analysis and interpretation.

From the Cronbach's Alpha score that highlighted all the items that constituted the survey questions, it was gleaned that the respondents are well aware of green products, but cannot really give a clear understanding as to whether fear of the rapid deterioration of the environment drives their buying intentions. According to Shah (2013: 53) the majority of the respondents could easily be referred to as green consumers, as green consumers are people who are aware of environmental issues and green products. Chapter Four (4) also reveals that within the area, demographic factors such as age, level of education, race, monthly income and monthly spend on groceries are some of the major influencers of green products demand, but most importantly the chapter looks at the four (4) major factors of consumer buying behaviour. Lastly, certification labelling was not viewed as a major contributor to the drivers of the consumption patterns of green products.

5.3 RESEARCH OBJECTIVES

- To evaluate the consumers' awareness of green products in the FMCGs sector;
- To differentiate between green concerned individuals and green consumers;
- To identify the influencers of green products' demand; and
- To evaluate the effectiveness of certification labelling for green product demand.

The above objectives were addressed through the literature review (Chapter Two) and the data analysis (Chapter Four).

Objective 1: To evaluate the consumers' awareness of green products in the FMCGs sector

The data collected revealed that the level of awareness around green products is high. On average, 65% of the respondents agree that they are aware of green products and their importance to the environment. This is contrary to Ryan (2006: 01) who revealed that green consumers lack awareness of green products and their health implications. However, the findings of the study agree with Shah (2013: 52) who stated that today's consumers are becoming green conscious as their level of awareness around green products increases. The knowledge of green products can be considered advanced as the respondents revealed that they make comparisons between green products' attributes and conventional product's attributes. This is not surprising considering that the data was collected from a population that can be considered educated.

It was also noted that women tend to show a higher level of awareness compared to men, and as they age women tend to care more about environmental issues than when they were young. This supports Kennel (2015: 01) when mentioning that consumers who have children tend to purchase more green products in a quest to preserve the planet for future generations.

Objective 2: To differentiate between green concerned individuals and green consumers

The data collected revealed that about 70% of the respondents are familiar with green products, and nearly half of the participants (49.2%) consider their perceptions of green products to be good. Nearly 40% of the participants mentioned that they are likely to recommend green products to friends. It also emerged that almost everyone is aware of green products and their positive impact on the environment. However, green consumers would be the individuals that go beyond just knowing about green products, they purchase these products. Green concerned individuals are the ones who are aware and concerned by the environmental issues but do not make green product purchases. These types of consumers care about the environment but some factors, such as economic status, hinders them from making green product purchases. Green concerned individuals tend to recommend these products to friends who have the financial means to make green product purchases. Another justification of the green concerned individuals' act in South Africa would be the large inequality earning rate. The data showed that very few people earn above R20 000 and they have a bigger buying power than those who earn below R1000, whose buying power is significantly lower. In this framework, it can be concurred that some people regard green products a luxury they cannot afford. The study also revealed that 59.9% of the participants think green products are expensive.

Objective 3: To identify the influencers of green products' demand

It emerged that less than 50% of the respondents are influenced by the media to purchase green products. This is in disagreement with Shah (2013: 52) and Wei et al (2014: 03) who stated that media is one of the influential and stimulating factors for green products' consumption and the authors encouraged companies to exploit this opportunity by investing more on media.

Looking at the factors influencing consumer buying behaviour, it emerged that the following factors are the influencers of green consumption patterns:

- Cultural factors;

- Social factors;
- Personal factors;
- Psychological factors.

Cultural factors

It was gathered from the empirical study that in the greater Durban area, the participants' awareness of green products differs significantly in respect to their ethnicity. Black people seemed neutral to the questions establishing the awareness of green products as opposed to other races. However, when it came to their consumption behaviour of green products, it was noticed that there is no significant difference, as the ANOVA test failed to establish any difference against the other races. This meant that the awareness of green products did not really translate into sales, but other factors might be the reason why consumers buy or not buy green products. Furthermore, it was learned that the geographical location does not have any significance on the consumption of green products in the greater Durban area.

Social factors

The literature revealed that green products are viewed as elite products by the consumers. This means that some green consumers can afford to make green purchases; some, however, are merely purchasing green products for the status associated with these products. The empirical study revealed that more of the participants (44.8%) earn between R0 - R1 000 monthly, followed by those who claim to earn between R1 001 - R5 000 monthly (28.1%). It was also discovered that 32.9% of the participants earning R0 - R1 000 spend between R201 - R500 on groceries alone per month, and amongst those earning between R1 001 - R5 000 monthly, 31.4% spend R501 - R1 000 on groceries per month. To these consumers who can be considered lower class consumers, differentiating between green products and conventional products is a luxury, as their main objective is to buy enough for the month at the lowest price possible.

When looking at the inequality in terms of wealth distribution in South Africa, only 1.0% of the participants earn R20 001 and above. These higher-class consumers and the middle-class consumers, it was concluded, all spend above R1 000 per month on groceries. These are the consumers who have the liberty to choose between green and conventional when purchasing FMCG products.

The empirical study revealed that 59.9% of the participants think green products are expensive. This empirical study complements the literature, which revealed that some consumers purchase green products because of the status associated with them: some will purchase these products not because of the benefits but simply to reveal their social status.

Personal factors

It was observed that age plays a crucial role in one's consumption behaviour. The study indicated that more of the participants within the age group 18-19 years were neutral when compared against those within the age group 36-50 years on the awareness of green products. This highlights the change in perspective as people age; older people think of the future of the next generation more than when they were young. Another personal factor that was observed from the study was the economic situation driving one's consumption behaviour towards green products. It emerged that people who earn less are not as aware of green products compared with people who earn more. This emphasises that consumers who earn more have the liberty to compare the attributes of green products; while those who earn less, their main priority is to get more for less.

Psychological factors

The literature showed that there are four (4) motivators in green consumption namely, to pursue health; for status; for recognition; and followers. Some purchase because they believe there are health benefits to green products, some because of the status associated with green products, some want to be recognised for purchasing them and others just follow celebrities who purchase such products.

Another category of the psychological factors found is that of perception. It was revealed that the participants' perception of green products is good and they are likely to

recommend these products to others. It was also noted that more of the participants rated the overall experience of green products in the FMCG sector, and the making of green products, to be good.

Level of education was also noted to have played a crucial role. The empirical study was derived from an audience that would be considered educated as more of the respondents have diplomas, followed by those with matric and bachelors' degrees. The results revealed that participants under matric were more neutral compared to other levels of education. This means education challenges one to think beyond their discipline of education.

Objective 4: To evaluate the effectiveness of certification labelling for green product demand

The literature highlighted that certification labelling possesses the power to influence the consumption of green products. The literature also mentions that certification labelling/eco labels have the power to strengthen a brand. From the empirical study, it was learned that most of the participants were not sure as to whether certification labelling influences their consumption patterns. However, this was followed by approximately 45% of participants who agreed that certification labelling influences their buying behaviour as they read the labels of the products before buying.

5.4 CONTRIBUTIONS OF THIS STUDY

As mentioned from the first chapter, over the years green marketing has been an evolving topic, yet the market share of green products is significantly low. This study aimed to explore the growth potential of green products in the FMCGs sector. The findings of this study reveal insightful characteristics regarding consumer buying behaviour and patterns of green products. This study also contributes to the body of knowledge by offering insightful solutions to the problem undertaken in Chapter One (1) as well as the following

recommendations, and assists businesses by letting them use the recommendations to develop their marketing strategies and efforts that are tailored to the findings.

Based on the findings of this study, the majority of consumers are concerned about the prices of green products. These consumers care about the environment yet they do not have the financial means to show that they care. This study will help companies and marketing practitioners understand that the best way to sell green products in excess would be by developing products that would save the environment at a lower cost.

Consumers will also benefit from the study as the information provided will give policymakers, marketing practitioners and academics a better understanding of the green market environment. The understanding of these entities means better and affordable green products for the customers.

5.5. RECOMMENDATIONS

The findings from the literature review and the analysis of the data allowed for the emergence of the following recommendations, which will prove useful for companies in the green products market:

From the analysis of the data, it has been noted that people are well aware of green products. Now the focus should not be on creating awareness but on matching the product attributes of the conventional products and the green products.

Both the literature review and the data analysis revealed that women who are between the age of 36-50 years, and have children, purchase more green products. Therefore, companies should exploit this opportunity by creating marketing strategies centred on these consumers. Also, companies and marketing practitioners need to remember that they can communicate with the parents via their children as the greatest expense for parents comes from their children. This means that some of their marketing strategies can be directed to the children in a quest to get the parents' attention.

Both the literature review and the analysis of the data revealed that people think green products are expensive. The data analysis also revealed that more of the participants

(44.8%) earn between R0 - R1 000 monthly, followed by those who earn between R1 001 - R5 000 monthly (28.1%). Therefore, it can be concurred that companies might have to consider manufacturing green products that will compete with the conventional products in terms of price.

Less than 50% of the respondents said they are not really influenced by media to purchase green products. This means that companies might have to consider cutting down on media and invest in other forms of communication. They might even consider using some of that money for product development.

Key motivators for purchasing green products have been identified as: health, status, recognition and followers. This means that some people purchase green products because of the health benefits associated with such products. Some purchase because of the status that comes with being seen buying such products. Some purchase because they want to be seen as individuals who care about the environment, and some purchase because they are following people they admire, such as celebrities who purchase green products. This means companies can exploit these opportunities by enhancing each motivator to drive their revenue.

Level of education must be taken into consideration when marketing green products. Perhaps companies can target tertiary students as they are well educated about the environment and the study revealed that the level of education is one of the key drivers of green product consumption patterns. Education is one of the reasons why some look at certification labelling before they purchase green products.

The review of literature has established the significant change needed in the marketing of green products. Findings from previous studies have identified that some consumers' buying intentions are shaped by eco-labels and the media. Perhaps governments should intervene in the certification labelling business by ensuring that companies that label their products as green are really green. This will go a long way to reassure even the sceptical consumer.

5.6 IMPLICATIONS FOR FURTHER RESEARCH

This study analysed the factors influencing the demand and consumption patterns of green products in the FMCGs sector in the greater Durban area. Nonetheless, some issues were noted that can assist with the expansion of this study area.

This study was quantitative in nature. Therefore, it is advisable that a qualitative study is performed that might uncover information that might have been overlooked by this study. This was noticed as some of the participants were eager to give more information beyond that which was covered by the questionnaire.

A study that would look at more places far beyond the greater Durban area is recommended.

5.7 CONCLUSION

The main focus of this chapter was to deliver a summary of the whole study, findings related to the primary and secondary data, draw conclusions, recommendations and implications for further research.

The study has analysed the factors influencing the demand and consumption patterns of green products in the FMCGs sector in the greater Durban area. Factors influencing the demand and consumption patterns of green products were identified. All the objectives from the first chapter were addressed and the findings will help the industry by shaping their green marketing strategies. Academics will benefit and this will contribute immensely to the body of knowledge about the topic undertaken.

The recommendations reflect only a portion of what can be taken from the study. Both academics and the industry are welcome to use the findings to tailor them to what they want to achieve.

BIBLIOGRAPHY:

Addy, R. 2012. *Eco-labels could 'overwhelm' consumers - study*. Available: <https://www.foodnavigator.com/Article/2012/08/10/Eco-labels-could-overwhelm-consumers-study> (Accessed 15 March 2018).

Air Quality Sciences. 2010. *Defining Green Products*. Available: http://www.cleanlink.com/pdf/casestudieswhitepapers/Defining_Green_Products.pdf (Accessed 10 April 2018).

Alam, O., Billah, M. and Yajie, D. 2018. Characteristics of plastic bags and their potential environmental hazards. *Resources, Conservation and Recycling*, 32: 121-129. Available: <https://www.sciencedirect.com/science/article/pii/S0921344918300375> (Accessed 30 July 2018).

Alfreds, D. 2018. Woolworths says goodbye to plastic, but it will take time. *News24*, 06 June. Available: <https://www.news24.com/Green/News/woolworths-says-goodbye-to-plastic-but-it-will-take-time-20180606> (Accessed 30 July 2018).

Apaydin, F. and Szczepaniak, M. 2017. Analysing the profile and purchase intentions of green consumers in Poland. *Ekonomika*, 96(1): 93-112. Available: <https://doi.org/10.15388/Ekon.2017.1.10666> (Accessed 14 March 2018).

Armstrong, G. and Kotler, P. 2006. *Marketing: An introduction*. 8th ed. London: Prentice-Hall.

Bartels, J. and Hoogendam, K. 2011. The role of social identity and attitudes toward sustainability brands in buying behaviours for organic products. *Journal of Brand Management*, 18(9): 697-708.

Bhattacharyya, D. K. 2006. *Research Methodology*. 2nd ed. New Delhi: Excel Books.

Brand South Africa. 2012. *South African firms 'cutting emissions'*. Available: <https://www.brandsouthafrica.com/investments-immigration/business/emissions-261112> (Accessed 20 June 2018).

Brand South Africa. 2014. *South Africa takes the green road*. Available: <https://www.brandsouthafrica.com/south-africa-fast-facts/news-facts/south-africa-takes-the-green-road> (Accessed 06 March 2018).

Bui, M. H. 2005. Environmental Marketing: A Model of Consumer Behaviour. In: Johnston, T. C., ed. *Proceedings of the Annual Meeting of the Association of Collegiate Marketing Educators*. The University of Tennessee at Martin, Dallas, 1-5 March 2005.

Tennessee: The University of Tennessee at Martin, 20-28. Available: http://acme-fbd.org/wp-content/uploads/2014/04/ACME_2005_Proceedings.pdf (Accessed 15 March 2018).

Burmeister, E. and Aitken, L. 2012. Sample size: How many is enough? *Australian Critical Care*, 25(4): 1-10. Available: https://research-repository.griffith.edu.au/bitstream/handle/10072/51545/83704_1.pdf?sequence=1&isAllowed=y (Accessed 8 August 2017).

Cavana, R. Y., Delahaye, B. L. and Sekaran, U. 2001. *Qualitative and Quantitative methods*. West Sussex: John Wiley and Sons.

Chan, H. K., He, H. and Wang, W. Y. C. 2012. Green marketing and its impact on supply chain management in industrial markets. *Industrial Marketing Management* (online), 41:557-562. Available: <http://www.sciencedirect.com.dutlib.dut.ac.za/science/article/pii/S0019850112000855?rdoc=1&fmt=high&origin=gateway&docanchor=&md5=b8429449ccfc9c30159a5f9aeaa92ffb&ccp=y> (Accessed 5 June 2017).

Chan, K. 2000. Market Segmentation of Green Consumers in Hong Kong. *Journal of International Consumer Marketing*, 12(2): 7-24. Available: https://doi.org/10.1300/J046v12n02_02 (Accessed 08 March 2018).

Chekima, B., Wafa, S.A., Igau, O.A., Chekima, S. and Sondoh, S.L. 2016. Examining green consumerism motivational drivers: does premium price and demographics matter to green purchasing? *Journal of Cleaner Production*, 112(4): 3436-3450. Available:

<http://www.sciencedirect.com/science/article/pii/S095965261501330X> (Accessed 07 October 2017).

Chkanikova, O. and Lehner, M. 2015. Private eco-brands and green market development: towards new forms of sustainable governance in food retailing. *Journal of Cleaner Production* (online), 107: 74-84. Available: <https://www.sciencedirect.com/science/article/pii/S0959652614005320?via%3Dihub> (Accessed 30 April 2018).

Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E. and Martinez, J. D. 2010. Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Sciences* (online), 39:158-174. Available: <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?sid=b0fc4641-087b-49a1-8cf9-8826c88395bc%40sessionmgr4010&vid=0&hid=4207> (Accessed 22 May 2017).

Crouth, G. 2016. We're throwing money away on plastic bags. *IOL News*, 28 November. Available: <https://www.iol.co.za/news/south-africa/were-throwing-money-away-on-plastic-bags-2093938> (Accessed 12 March 2018).

Dagher, G. K. and Itani, O. 2014. Factors influencing green purchasing behaviour: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behaviour*, 13: 188-195. Available: <https://onlinelibrary.wiley.com/doi/pdf/10.1002/cb.1482> (Accessed 21 April 2018).

Dahlstrom, R. 2011. *Green Marketing Management*. Boston: Cengage learning.

Datta, S. K. 2011. Pro-environmental Concern Influencing Green Buying: A Study on Indian Consumers. *International Journal of Business and Management*, 6(6): 124-133.

De Wet, T. 2008. *South Africa: What Does "Polluter Pays" Mean in South Africa*. Available: <http://www.mondaq.com/southafrica/x/66202/Environmental+Law/What+Does+Polluter+Pays+Mean+In+South+Africa> (Accessed 13 April 2018).

- Dekhili, S. and Achabou, M. A. 2013. Price Fairness in the Case of Green Products: Enterprises' Policies and Consumers' Perceptions. *Business Strategy and the Environment*, 22: 547–560. Available: DOI: 10.1002/bse.1763 (Accessed 19 July 2017).
- Do Paco, A. M. F and Raposo, M. L. B. 2010. Green consumer market segmentation: empirical findings from Portugal. *International Journal of Consumer Studies*, 34(4): 429–436. Available: <http://onlinelibrary.wiley.com/doi/10.1111/j.1470-6431.2010.00869.x/full> (Accessed 09 March 2018).
- Do Paco, A. M. F. and Reis, R. 2012. Factors affecting scepticism toward green advertising. *Journal of Advertising*, 41(4): 147-152.
- Do Paco, A. M. F., Raposo, M. L. B. Filho, W. L. 2009: Identifying the green consumer: A segmentation study. *Journal of Targeting, Measurement and Analysis for Marketing*, 17(1): 17–25. Available: <https://link.springer.com/article/10.1057/jt.2008.28> (Accessed 14 March 2018).
- Donnenfeld, Z., Crookes, C. and Hedden, S. 2018. *A delicate balance: Water scarcity in South Africa*. Pretoria: Institute for Security Studies. Available: <https://issafrica.s3.amazonaws.com/site/uploads/sar13-2.pdf> (Accessed 21 May 2018).
- Drozdenko, R., Jensen, M. and Coelho, D. 2011. Pricing of Green Products: Premiums Paid, Consumer Characteristics and Incentives. *International Journal of Business, Marketing, and Decision Sciences*, 4(1): 106-116. Available: <http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=1&sid=3ddf5f3d-f09a-4d14-bd9c-946ebf37f438%40sessionmgr4006> (Accessed 19 July 2017).
- D'souza, C. and Taghian, M., 2005. Green advertising effects on attitude and choice of advertising themes. *Asia Pacific Journal of Marketing and Logistics*, 17(3): 51-66.
- Duczeminski, M. 2018. Using Behavioural Segmentation to Understand Your Customers. *Fieldboom* (Blog). Available: <https://www.fieldboom.com/blog/behavioral-segmentation/> (Accessed 12 March 2018).
- Ekka, R. 2014. *Research Methodology and Data Analysis in Humanities & Social Sciences*. Maharashtra: Laxmi Book Publication.

eNCA. 2018. *How Cape businesses are saving water*. Available: <https://www.enca.com/south-africa/coca-cola-employs-water-saving-measures-western-cape> (Accessed 21 May 2018).

Fink, A. 2008. *Conducting research literature reviews*. 3rd ed. London: Sage Publications.

Fraj, E., Martinez, E. and Matute, J. 2011. Green marketing strategy and the firm's performance: the moderating role of environmental culture. *Journal of strategic marketing*, 19(4): 339-355. Available: <http://www.tandfonline.com/doi/abs/10.1080/0965254X.2011.581382#aHR0cDovL3d3dy50YW5kZm9ubGluZS5jb20vZG9pL3BkZi8xMC4xMDgwLzA5NjUyNTRYLjIwMTEuNTgxMzgyP25lZWRY2Nlc3M9dHJ1ZUBAQDA> (Accessed 18 July 2017).

Garg, B. 2014, Green Marketing: Buzzword for new age marketers in India. *The International Journal of Business & Management*, 2(9): 185-194.

Ginsberg, J. M. and Bloom, P. N. 2004. Choosing the Right Green Marketing Strategy. *MIT Sloan Management Review*. 46(1): 79-84. Available: <http://web.b.ebscohost.com/ehost/detail/detail?vid=0&sid=514fcdcb-9d55-4296-96eb-ba537d59c3a6%40sessionmgr103&bdata=JnNpdGU9ZWWhvc3QtbGI2ZSZzY29wZT1zaXRI#AN=14829807&db=bth> (Accessed 18 July 2017).

Greenpop. 2018. *Cape Town Urban Greening Programme*. Available: <https://greenpop.org/our-work/cape-town/> (Accessed 30 July 2018).

Griskevicius, V. and Tybur, J. M. 2010. Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation. *Journal of Personality and Social Psychology*, 98(3): 392-404. Available: <http://assets.csom.umn.edu/assets/140554.pdf> (Accessed 13 March 2018).

Harrison, A. 2018. New Day Zero date announced as Cape Town fights back. *News24*, 30 January. Available: <https://www.news24.com/SouthAfrica/News/new-day-zero-date-announced-as-cape-town-fights-back-20180130> (Accessed 21 May 2018).

Hausman, A. 2016. *Consumer Personality Segmentation in Digital Marketing* (blog). Available: <https://www.hausmanmarketingletter.com/consumer-personality-digital-marketing/> (Accessed 18 April 2018).

Houser, J. 2008. *Nursing Research: Reading, using and creating research*. Denver: Jones & Bartlett Publishers.

Janssen, M. A. and Jager, W. 2002. Stimulating diffusion of green products: Co-evolution between firms and consumers. *Journal of evolutionary economics*, 12(3): 283-306. Available: <https://link.springer.com/content/pdf/10.1007/s00191-002-0120-1.pdf> (Accessed 12 April 2018).

Jeevan, P. 2017. Green Consumer - Segmentation and Marketing Strategies - A Conceptual Framework. *Glimpses of Consumer Behaviour towards 2020*, April. 1-15. Available: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2960063 (Accessed 12 March 2018).

Joshi, Y. and Rahman, Z. 2015. Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, 3: 128-143. Available: <https://www.sciencedirect.com/science/article/pii/S2306774815000034> (Accessed 13 March 2018).

Kampfer, C., Seiler, T. B., Beger, A. L., Jacobs, G., Lower, M., Moser, F., Reimer, J., Trautz, M., Usadel, B., Wormit, A. and Hollert, H. 2017. Life cycle assessment and sustainable engineering in the context of near net shape grown components: striving towards a sustainable way of future production. *Environmental Sciences Europe*, 29(27): 1-6. Available: <https://enveurope.springeropen.com/track/pdf/10.1186/s12302-017-0125-x?site=enveurope.springeropen.com> (Accessed 15 March 2018).

Kennell, B. 2015. Environmental Concern Empowers the People. *HuffPost* (blog). Available: https://www.huffingtonpost.com/brian-kennell/environmental-concern-emp_b_8105580.html (accessed 08 March 2018).

Khan, J. A. 2008. *Research Methodology*. New Delhi: S.B Nangia.

Kings, S. 2013. Local companies doing little to lower carbon emissions. *Mail and Guardian*, 28 November. Available: <https://mg.co.za/article/2013-11-28-local-companies-doing-little-to-lower-carbon-emissions> (Accessed 21 June 2018).

Kotler, P. and Armstrong, G. M. 2010. *Principles of Marketing*. 13th ed. London: Prentice Hall.

Kotler, P. and Keller, L. K. 2012. *Marketing Management*. 14th ed. New Jersey: Prentice Hall.

Kumar, K. and Anand, B. 2012. An Investigation of Green Practices of Selected FMCG Companies in India. *International Journal of Business Management Economics and Information Technology*, 4(2) Part II: 121-124. Available: <http://www.serialsjournals.com/serialjournalmanager/pdf/1363243137.pdf> (Accessed 21 May 2018).

Kumar, R. 2014. *Research Methodology: A step-by-step to beginners*. 4th ed. London: Sage.

Laheri, V., Dangi, H. K. and Vohra, A. 2014. Green Marketing: Development of Construct and Its Evolution. *Asia-Pacific Journal of Management Research and Innovation*, 10(2): 147-155. Available: DOI: 10.1177/2319510X14536220 (Accessed 21 April 2018).

Lallanilla, M. 2015. *Greenhouse Gas Emissions: Causes & Sources*. Available: <https://www.livescience.com/37821-greenhouse-gases.html> (Accessed 13 April 2018).

Lekhanya, L. M. 2014. The Level of awareness of green marketing and its managerial implications amongst selected South African Manufacturing Small, Medium and Micro Enterprises (SMMEs) in KwaZulu-Natal. *Journal of Economics and Behavioural Studies*, 6(8): 625-635.

Leonidou, L.C., Leonidou, C.N., Palihawadana, D. and Hultman, M., 2011. Evaluating the green advertising practices of international firms: a trend analysis. *International Marketing Review*, 28(1): 6-33.

Levens, M. 2012. *Marketing: Defined, Explained, Applied*. 2nd ed. New Jersey: Prentice-Hall.

- Li, S., Ngriatedema, T. and Chen, F. 2017. Understanding the Impact of Green Initiatives and Green Performance on Financial Performance in the US. *Business Strategy and the Environment*, 26: 776-790. Available: <https://onlinelibrary.wiley.com/doi/epdf/10.1002/bse.1948> (Accessed 18 May 2018).
- Lin, D. and Chen, H. 2016. A Review of Green Consumer Behaviour Based on the Social Perspective. *Theoretical Economics Letters*, 6: 1088-1095. Available: https://file.scirp.org/pdf/TEL_2016101115192818.pdf (Accessed 13 March 2018).
- Mackey, A. and Gass, S. M. 2016. *Second Language Research: Methodology and Design*. 2nd ed. New York: Routledge.
- Mangal, S. K. and Mangal, S. 2013. *Research Methodology in Behavioural Sciences*. New Delhi: PHI Learning Private Limited.
- Mayekar, M. R. and Sankaranarayanan, K. G. 2014: Segmentation of Green Consumers. *International Journal of Science and Research (IJSR)*, 3(10): 1709-1713. Available: <https://www.ijsr.net/archive/v3i10/T0NUMTQ3MTM=.pdf> (Accessed 12 March 2018).
- McGivern, Y. 2006. *The practice of marketing and social research*. 2nd ed. England: Pearson Education.
- McPherson, E. G., Nowak, D. J. and Rowntree, R. A. 1994. *Chicago's Urban Forest Ecosystem: Results of the Chicago Urban Forest Climate Project*. Radnor: United States Department of Agriculture. Available: https://www.researchgate.net/profile/David_Nowak/publication/224001444_Chicago%27s_Urban_Forest_Ecosystem_Results_of_the_Chicago_Urban_Forest_Climate_Project/links/5405ad720cf2bba34c1d74bb/Chicagos-Urban-Forest-Ecosystem-Results-of-the-Chicago-Urban-Forest-Climate-Project.pdf#page=103 (Accessed 26 July 2018).
- Meyer, N. 2014. *Green Consumerism*. Available: <https://prezi.com/dwrviw6hwch/green-consumerism/> (Accessed 15 March 2018).
- Mintz, J. 2017. *Psychographic Segmentation* (online). Available: <http://www.jimmintz.ca/wp-content/uploads/2017/07/pchychographic-segmentation.pdf> (Accessed 14 March 2018).

Mintz, T. M. 2011. Profiling Green Consumers: A Descriptive Study. M.BA., Appalachian State University. Available: https://libres.uncg.edu/ir/asu/f/Mintz,%20Tara_2011_Thesis.pdf (Accessed 14 March 2018).

Mr Price Group Limited, 2017. *Annual Integrated Report April 2016 - April 2017*. Durban: Mr Price Group Limited. Available: <http://www.mrpricegroup.com/MrPriceGroupCorporate/media/mrpgcorp/SiteAssets/2017/Full-annual-integrated-report-2017.pdf> (Accessed 14 June 2018).

Nabileyo, O. 2009. The polluter pays principle and environmental liability in South Africa. LL.M., North-West University. Available: http://dspace.nwu.ac.za/bitstream/handle/10394/4712/nabileyo_o.pdf;sequence=1 (Accessed 10 August 2017).

Olson, E. L. 2013. It's not easy being green: the effects of attribute tradeoffs on green product preference and choice. *Journal of the Academy of Marketing Science* (online), 41:171-184. Available: <https://link.springer.com/article/10.1007/s11747-012-0305-6> (Accessed 9 June 2017).

Ottman, J. 2009. *Green Marketing Really Has Gone Mainstream* (online). Available: <https://hbr.org/2009/07/green-marketing-has-come-a-lon> (Accessed 28 May 2017).

Ottman, J. 2010. *A Smart Way to Segment Green Consumers* (online). Available: <https://hbr.org/2010/02/a-smart-way-to-segment-green-c> (Accessed 28 May 2017).

Ottman, J. 2011. *The new rules of green marketing*. San Francisco: Berrett-Koehler.

Our operations in Southern Africa (Online). 2017. Available: <http://southafrica.ecocert.com/our-operation-southern-africa.html> (Accessed 31 May 2017).

Pride, W. M. and Ferrell, O. C. 2010. *Marketing*. 15 ed. Melbourne: Cengage Learning.

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

RCL Foods, 2016. *Our Sustainable Business Report for The Year Ended 30 June 2016*. Durban: RCL Foods. Available: <https://www.rclfoods.com/sites/default/files/sustainability.pdf> (Accessed 21 June 2018).

Ryan, B. 2006. *Green Consumers: A Growing Market for Many Local Businesses*. Available: <https://fyi.uwex.edu/downtowneconomics/files/2012/07/green-consumers.pdf> (Accessed 08 March 2018).

Sarmadi, D. 2015. WWF: *Irresponsible food consumption fuels global climate change*. Available: <https://www.euractiv.com/section/development-policy/news/wwf-irresponsible-food-consumption-fuels-global-climate-change/> (Accessed 8 August 2017).

Schuitema, G. and De Groot, J. M. 2014. Green consumerism: The influence of product attributes and values on purchasing intentions. *Journal of Consumer Behaviour* (online), 14:57-69. Available: <http://onlinelibrary.wiley.com/doi/10.1002/cb.1501/full> (Accessed 23 May 2017).

Shabani, N., Ashoori, M., Taghinejad, M., Beyrami, H. and Fekri, M. N. 2013. The study of green consumers' characteristics and available green sectors in the market. *International Research Journal of Applied and Basic Sciences*, 4(7): 1880-1883. Available: http://webcache.googleusercontent.com/search?q=cache:http://www.irjabs.com/files_site/paperlist/r_925_130610221654.pdf (Accessed 25 July 2017).

Shah, P. 2013. Green Consumerism. *Asia Pacific Journal of Management & Entrepreneurship Research*, 2(1): 51-55. Available: <https://www.questia.com/library/journal/1P3-2932337971/green-consumerism> (Accessed 25 July 2017).

Singh, K. 2007. *Quantitative Social Research Methods*. New Delhi: Sage Publications.

Smith, E. E. 2013. Assessing the impact of greening perceptions on consumer purchase behaviour. *International journal of economics and management science*, 2(11):94-107.

Smith, S. 2004. *Plastic Bags NSW Parliamentary Library Research Service, Briefing Paper No 5/04*. Available:

<https://www.parliament.nsw.gov.au/researchpapers/Documents/plastic-bags/05-04.pdf>
(Accessed 30 July 2018).

Spors, K. 2011. *Green Business Trend: Moving Beyond Green Marketing*. Available:
<https://smallbiztrends.com/2011/12/green-business-trend-beyond-green-marketing.html>
(Accessed 12 April 2018).

Suki, N. M. 2016. Consumer environmental concern and green product purchase in Malaysia: structural effects of consumption values. *Journal of Cleaner Production*, 132: 204-214. Available:
<https://www.sciencedirect.com/science/article/pii/S0959652615013153> (Accessed 08 March 2018).

Tai, F. and Chuang, S. 2014. Corporate Social Responsibility. *iBusiness*, 6:117-130. Available: http://file.scirp.org/pdf/IB_2014091916083406.pdf (Accessed 03 August 2017).

United Arab Emirates, Department of Economic Development. 2016. *The FMCG/Prepared Food Sector in Africa: An Overview and Trade Analysis*. Dubai: Dubai Exports. Available:
<http://www.dedc.gov.ae/StudiesAndResearchDocument/STR001042016-FoodAfricaFINAL.pdf> (Accessed 07 March 2018).

Vanclay, J. K., Shortiss, J., Aulsebrook, S., Gillespie, A. M., Howell, B. C., Johanni, R., Maher, M. J., Mitchell, K. M., Stewart, M. D. and Yates J. 2011. Customer Response to Carbon Labelling of Groceries. *Journal of Consumer Policy*, 34:153-160. Available:
<http://search.proquest.com.dutlib.dut.ac.za/docview/853036684?accountid=10612>
(Accessed 06 June 2017).

Verma, S. 2017. Niche level segmentation of green consumers: A key for psychographic or demographic predicament. *South Asian Journal of Business Studies*, 6(3): 274-290. Available: <https://doi.org/10.1108/SAJBS-05-2016-0040> (Accessed 14 March 2018).

Vernekar, S. S. and Wadhwa, P. 2011. Green Consumption: An Empirical Study of Consumers Attitudes and Perception regarding Eco-Friendly FMCG Products, with special reference to Delhi and NCR Region. *Opinion*, 1(1): 64-74.

Vidal, J. 2013. Climate change will hit poor countries hardest, study shows. *The Guardian*, 27 September. Available: <https://www.theguardian.com/global-development/2013/sep/27/climate-change-poor-countries-ipcc> (Accessed 09 April 2018).

Vyncke, P. 2002. Lifestyle Segmentation: From Attitudes, Interests and Opinions, to Values, Aesthetic Styles, Life Visions and Media Preferences. *European Journal of Communication*, 17(4): 445-463. Available: <http://journals.sagepub.com/doi/abs/10.1177/02673231020170040301?journalCode=ejc> (Accessed 18 April 2018).

Wei, C., Bruce C. Y. L., Kou, T. and Wu, C. 2014. Green marketing: The roles of appeal type and price Level, *Advances in Management and Applied Economics*, 4(5): 63-72.

Welman, J. C., Kruger, S. J. and Mitchell, B. 2005. *Research Methodology*. 3rd ed. Cape Town: Oxford University Press.

Wiid, J. and Diggins, C. 2009. *Marketing research*. Cape Town: Juta.

Winter, K. 2018. Day Zero is meant to cut Cape Town's water use: what is it, and is it working? *The Citizen*, 26 February. Available: <https://citizen.co.za/talking-point/1836615/day-zero-is-meant-to-cut-cape-towns-water-use-what-is-it-and-is-it-working/> (Accessed 21 May 2018).

Wither, D. 2016. How Going Green Can Save Your Company Millions: Saving Money Through Going Electronic. *HuffPost* (blog). Available: https://www.huffingtonpost.com/david-wither/how-going-green-can-save_b_10287006.html (Accessed 14 June 2018).

WWF. 2016. Asian Fast Moving Consumer Goods: A Sustainability Guide for Financiers and Companies. Available: https://yoursri.com/media-new/download/wwf_fmcs_2016_web_version.pdf (Accessed 09 April 2018).

Young, S. T. and Dhanda, K. K. 2013. *Sustainability: Essentials for Business*. Thousand Oaks: SAGE Publications.

ANNEXURE 1



Faculty of Management Sciences

Department of Marketing and Retail

Date: 04 August 2017

Dear Participant

My name is Obed Freedom Chauke, student number 21301518, a graduate from the Durban University of Technology. I am currently enrolled for my postgraduate studies, Masters in Marketing whereby I am required to research upon a topic: **Factors influencing the demand and consumption patterns of green products (FMCGs) in the greater Durban area**. The purpose of the study is to analyse the factors influencing the demand and consumption patterns of green products (FMCGs- Fast-Moving Consumer Goods) in the greater Durban area of South Africa.

As a Durban resident and someone who is economically active and does shopping for his/her family, I would like to invite you to participate in this research study by completing the attached questionnaire, which will require few minutes of your time. Please note there will be no compensation for this participation or any known risk. Please note that participation is voluntary and you can withdraw your participation anytime.

The completed questionnaire will be analysed and submitted to the Durban University of Technology's research office. If you wish to partake in this study, please complete the following questions as honestly as possible and return the completed questionnaire to the researcher promptly. In order to ensure confidentiality, please do not write your name.

Your participation will be appreciated and if you're interested in the findings of the study, please do not hesitate to let me know as I can send a link to the DUT's repository once the study is completed and available online.

Thank you for your assistance.

Yours sincerely,

Student

Contact Details:

Supervisor / Promoter

Contact Details:

Co-Supervisor/Co-Promoter

Contact Details:

QUESTIONNAIRE SURVEY

Green products are products that do not harm the environment from the time of their production until they reach the ultimate consumer, even during and after usage.

Are you a resident of the greater Durban area (Durban Central Business District (CBD) and surrounding areas)?

Yes	
No	

Instructions: Please tick with an 'X' on the spaces provided or fill in the spaces provided.

1. Please indicate your age group.

A. 18-19 Years	
B. 20-35 Years	
C. 36-50 Years	
D. Over 50 years	

2. Please indicate your gender.

A. Male	
B. Female	

3. Please indicate your level of education.

A. Under matric	
B. Matriculate	
C. Diploma	
D. Bachelors' degree	
E. Post-Graduate	
F. Other (Specify)	

4. Please indicate your occupational status.

A. Employed	
B. Unemployed	
C. Self-employed	
D. Other (Specify)	

5. Please indicate your ethnicity.

A. Black	
B. Indian	
C. Coloured	
D. White	

6. Which of the following best indicate your monthly income?

A. R0-R1000	
B. R1001-R5000	
C. R5001-R10000	
D. R10001-R20000	
E. R20001 and above	

7. How much money do you spend on groceries (Any other Fast Moving Consumer Goods products included) per month?

A. R1-R200	
B. R201-R500	
C. R501-R1000	
D. R1001 and above	

8. In which of the areas below do you reside in the greater Durban?

A. Glenwood	
B. Umlazi	
C. Other (Specify)	

Please indicate with an X. To what extent do you agree or disagree with the following statements?

Questions	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
9. I am familiar with green products.					
10. I am aware of the environmental impact of green products.					
11. Fear of losing our planet enables me to purchase green products.					
12. I always buy green products to conserve the planet.					
13. I compare green product attributes to those of conventional products before purchasing.					
14. Price influence my green purchasing intentions.					
15. Green products encompass higher value.					
16. I am influenced by media to purchase green products.					
17. I think green products in the FMCG sector satisfy the market need.					

Please indicate with an X. which of the following best describe your perception of green products?

Questions	Excellent	Good	Average	Fair	Poor
18. Compared to conventional products how would you rate green products in the FMCG sector?					
19. What is your likelihood of recommending green products to friends?					
20. How do you rate the overall experience of green products in the FMCG sector?					

21. How would you rate the marketing of green products?					
---	--	--	--	--	--

Please indicate with an X. To what extent do you agree or disagree with the following?

Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
22. I always read the labels of products before purchasing.					
23. I consider certification labelling an effective tool when purchasing green products.					
24. Certification labels influence me to purchase products.					

ANNEXURE 2



I-Faculty ye Management Sciences

UMnyango Wokukhangisa Nokuthengisa

Usuku: 04 August 2017

Mhlanganyeli othandekayo

Igama lami ngu-Obed Freedom Chauke, inombolo yomfundi 21301518, owathola iziqu eDurban University of Technology. Njengamanje ngibhalisele izifundo zami zokufunda i-postgraduate, Masters Marketing lapho ngidinga khona ukucwaninga ngesihloko: **Ukuhlaziya izinto ezithinta ukuthengwa kwama *green products* (FMCGs) endaweni enkulu eThekwini**. Inhloso yocwaningo ukuhlaziya izici ezithonya amaphethini okufunwa kanye nokusetshenziswa kwama *green products* (FMCGs) endaweni enkulu yaseThekwini, eNingizimu Afrika.

Njengomhlali waseThekwini nomuntu osebenzayo ngokwezomnotho futhi uthengela umndeni wakhe, ngingathanda ukukumema ukuba uhlanganyele kulolu cwaningo lokucwaninga ngokugcwalisa lemibuzo yemibuzo ekhonjiwe, okuzodinga imizuzu embalwa yesikhathi sakho. Uyacelwa ukuthi uqaphele ukuthi ngeke kube khona isinxephezelo salokhu kubamba iqhaza noma ngabe yikuphi ingozi eyaziwayo. Sicela uqaphele ukuthi ukubamba iqhaza kukuzithandela futhi unгахoxisa ukubamba iqhaza kwakho noma kunini.

I-questionnaire ephelele izohlaziywa futhi ithunyelwe ehhovisi laseDurban University of Technology. Uma ufisa ukuhlanganyela kulolu cwaningo, sicela ugcwalise le mibuzo elandelayo ngokwethembeka ngangokunokwenzeka bese ubuyisela lemibuzo yemibuzo egcwalisiwe kumsizi wemcwaningi ngokushesha. Ukuze uqinisekise ukuthi yimfihlo, sicela ungabhali igama lakho.

Ukubamba iqhaza kwakho kuzothokozelwa futhi uma unesithakazelo ekutholeni imiphumela yesifundo, ngicela ungangabazi ukungitshela njengoba ngingathumela isixhumanisi kudokhumenti ye-DUT uma isifundo sigcwalisiwe futhi sitholalalayo ku-intanethi.

Ngiyabonga ngosizo lwakho.

Ozithobayo,

Umfundi

Imininingwane Yokuxhumana:

Umqondisi / Umgqugquzeli

-Imininingwane Yokuxhumana:

IMIBUZO

Ama *Green products* yimikhiqizo engalimazi imvelo kusukela ngesikhathi sokukhiqiza kwayo kuze kube yilapho ifinyelela kumthengi omkhulu, ngisho nangesikhathi esisetshenziselwa ukusetshenziswa.

Ingabe uhlala endaweni enkulu eThekwini (endaweni enkulu yama bhizinisi as eThekwini nezindawo ezimaduzane)?

Yebo	
Cha	

Imiyalo:

Sicela ufake uphawu nge-'X' ezikheleni ezinikeziwe noma ugqwalise izikhala ezinikeziwe

1. Sicela ubonise iqembu lakho leminyaka.

A. 18-19 iminyaka	
B. 20-35 iminyaka	
C. 36-50 iminyaka	
D. Ngaphezu 50 iminyaka	

2. Sicela ubonise ubulili bakho.

A. Owesilisa	
B. Owesifazane	

3. Sicela ubonise izinga lakho lemfundo.

A. Ngaphansi kwe-matric	
B. Matikuletsheni	
C. I-Diploma	
D. Iziqo ze-Bachelors	
E. I-Post-Graduate	
F. Okunye (cacisa)	

4. Sicela ubonise isimo sakho somsebenzi.

A. Ngiyasebenza	
B. Angisebenzi	
C. Ngiyazisebenza	
D. Okunye (cacisa)	

5. Sicela ubonise ubuzwe bakho.

A. Ngimnyama	
B. Ngingumndiya	
C. Ngingumkhaladi	
D. Ngingumlungu	

6. Yikuphi okulandelayo okubonisa kahle imali yakho engenayo ngenyanga?

A. R0-R1000	
-------------	--

B. R1001-R5000	
C. R5001-R10000	
D. R10001-R20000	
E. R20001 kuyaphezulu	

7. Uchitha imali engakanani ekuthengeni (noma yikuphi okunye lokufaka phakathi imikhiqizo yokuThengiswa kweMpahla yabathengi esheshayo) ngenyanga?

A. R1-R200	
B. R201-R500	
C. R501-R1000	
D. R1001 and above	

8. Yiziphi izindawo ezingezansi ohlala kuzo, eThekwini?

A. Glenwood	
B. Umlazi	
C. Okunye (Cacisa)	

Sicela ubonise nge-X. Uvumelana kangakanani noma awuvumelani kangangakanani nezitatimende ezilandelayo?

Imibuzo	Ngivumelana kakhulu	Ngiyavumelana	Angithathi hlangothi	Ngiyala	Ngiyala kakhulu
9. Ngiyazi ama <i>green products</i>					
10. Ngiyazi anomthelela muphi kwezemvelo ama <i>green products</i>					
11. Ukwesaba ukulahlekelwa iplanethi yethu kungenza ngithenge ama <i>green products</i>					
12. Ngihlale ngithenga ama <i>green products</i> ukugcina iplanethi.					

13. Ngiqhathanisa izici zama <i>green products</i> kumikhiqizo evamile ngaphambi kokuthenga					
14. Inani lithonya izinhloso zami zokuthenga eziluhlaza.					
15. Imikhiqizo emihle ihlanganisa inani eliphakeme.					
16. Ngithonywa abezindaba ukuthenga ama <i>green products</i>					
17. Ngicabanga ukuthi ama <i>green products</i> emkhakheni we-FMCG inelisa izidingo zemakethe.					

Sicela ubonise nge-X. Yikuphi kokulandelayo okuchaza kahle indlela oyibuka ngayo imikhiqizo eluhlaza?

Imibuzo	Kuhle kakhulu	Kuhle	isilinganiso	Okulungile	Kubi
18. Uma kuqhathaniswa nemikhiqizo evamile ungawabheka kanjani ama <i>green products</i> emkhakheni we-FMCG?					
19. Ubani amathuba akho okuncoma ama <i>green products</i> kubangani?					
20. Ulinganisela kanjani isipiliyoni sonke sama <i>green products</i> kumkhakha we-FMCG?					
21. Ungakulinganisa kanjani ukukhangiswa kwama <i>green products</i> ?					

Sicela ubonise nge-X. Uvumelana kangakanani noma awuvumelani kangangakanani nezitatimende ezilandelayo?

Imibuzo	Ngivumelana kakhulu	Ngiyavumelana	Angithathi hlangothi	Ngiyala	Ngiyala kakhulu
22. Ngihlale ngifunda amalebuli wemikhiqizo ngaphambi kokuthenga.					

23. Ngicabanga ukuthi i-eco label ithuluzi eliphumelelayo uma uthenga ama <i>green products</i> .					
24. Amalebula okuqinisekiswa angithonya ukuba ngithenge imikhiqizo.					

ANNEXURE 3



3rd Floor
102 Stephen Dlamini Road
Muggrave
Durban, 4062

PO Box 50284
Muggrave Road
Durban, 4062
South Africa

Tel: +27 31 362 1700
Fax: +27 31 337 0649
Email: info@broll.com
Web: www.broll.com

8 November 2017

Davenport Square
89 Helen Joseph Road
Glenwood
Durban

Dear Obed

RE: PERMISSION TO CONDUCT RESEARCH AT DAVENPORT

Please note that your request to conduct research at Davenport Square has been approved.

Wishing you all the success in your studies and the research at hand. We are glad to be of assistance in your journey of excellence.

Should you require any further info or assistance, please contact Sandy on the below details

Sandy Mabena
Junior Marketing Manager
Davenport Square
Direct Line: +27 31 201 0372
Cell: 081 488 3461
Email: smabena@broll.com
Davenport Square, 89 Helen Joseph Road, Glenwood, Durban, 4083

ANNEXURE 4

30/34 Diakonia Avenue
Port View
Albert Park
Durban
4001

Growth Point Properties
City View Shopping Centre
10 Mathews Meyiwa Rd
Greyville
DURBAN
4001

15 May 2018

Request for Permission to Conduct Research

Dear Thelma Zietsman

My name is Obed Chauke, a MMSci: Marketing student at the Durban University of Technology. The research I wish to conduct for my dissertation involves **Analysing factors that influence the consumption patterns of green products (FMCGs) in the greater Durban area.**

I am hereby seeking your consent to conduct this research within the City View properties as I envisage finding a lot of shoppers from the Morningside community. Please note this is not a research based on the City View Shopping Centre, but will only base its focus on the shoppers. Respondents will be asked to participate under their own free will and can withdraw their participation anytime they feel the need to do so.

I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process. Please note that this proposal has been accepted by the Faculty Research Commission, and currently awaits approval from the Institutional Research Ethics Commission.

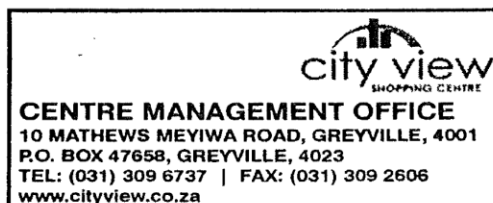
If you require any further information, please do not hesitate to contact me on +27 71 268 0049/ chaukeobed@gmail.com. Thank you for your time and consideration in this matter.

Yours sincerely,

Obed Freedom Chauke
Durban University of Technology

16/5/2018

*THIS IS TO CONFIRM THAT
OBED FREEDOM CHAUKE MAY
CONDUCT HIS RESEARCH AT
CITY VIEW SHOPPING CENTRE.*



THELMA ZIETSMAN

ANNEXURE 5

The Workshop Shopping Centre
99 Samora Machel Street
Durban Central
DURBAN
4001

28 May 2018

30/34 Diakonia Avenue
Albert Park
DURBAN
4001

Dear Obed Chauke

RE: PERMISSION TO CONDUCT A STUDY AT THE WORKSHOP

This is to inform you that your request to conduct a study at The Workshop has been approved.

We're glad to be of assistance to you and we wish you all the success with the research and your studies.

Should you require any further info or assistance, please do not hesitate to contact me on zola@mseed.co.za.

Regards,

Zola Mjoli
Marketing Manager
The Workshop